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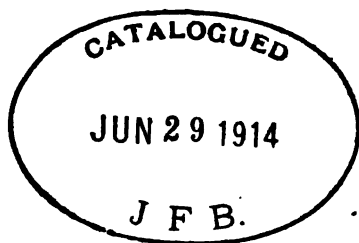
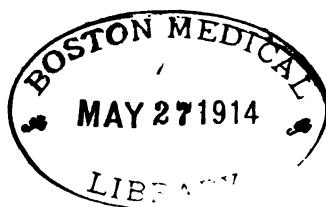


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EDITED BY
B. F. UNDERWOOD, M. D.

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NO. I.

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VOL. XVII.

INTERSTITIAL GESTATION.

BY

B. F. BETTS, M. D.

THE terms interstitial, intramural, parietal, and tubo-uterine are synonymous when applied to a form of gestation in which the fetus is developed in that part of the fallopian tube which traverses the uterine wall at the cornu. As a variety of ectopic gestation it differs so essentially from the other forms as to merit separate consideration.

Parry, in his classical work on "Extra-uterine Pregnancy," tabulates 31 cases of the interstitial variety in a total of 214. So that it appears to be much less frequently met with than the other forms. This can be accounted for by the fact that a mere bending of this portion of the fallopian channel, so as to obstruct the passage of the ovum to the uterus, does not occur as in the other portions outside of the uterine wall. It is, however, quite as liable to

become constricted from deposits of plastic material beneath the mucous membrane of the canal, and to loose its epithelial lining from disintegrating processes—both causative factors of considerable influence in the production of all varieties of ectopic gestation.

In this connection it is interesting to note that it is but recently that these influences have been recognized by the authors of some of our best text-books on obstetrics. In Tarnier's edition of Cazeaux of 1884, we find the statement that "nothing can be more obscure than the causes of extra-uterine pregnancy," although it is intimated that paralysis and other diseases of the tube may conduce to it. Surprise during coitus, fear of surprise, or the fear of the result were usually mentioned as reasons for the failure of the ovum to continue in its course through the tube until it reached its normal site for development in the cavity of the uterus. It is only within the past few years that the profession has attained to a full appreciation of the influence excited by diseases affecting the integrity of the tube itself.

Some authors advanced the theory that the ovum fell into the open mouths of some distended uterine veins, which of course do not empty into the fallopian tubes. Others assigned as a cause the migration of the fertilized ovum into the canal of Gartner, a channel whose very existence is doubted by most authorities of the present day, except as it may be found in some of the lower animals perhaps.

Interstitial gestation is probably the "graviditas in substantia uteri" of the older writers, but Breschet was the first to describe it with precision. Later Baart de la Faille collected the records of seventeen cases, all of which terminated fatally. The diagnosis of interstitial pregnancy is attended with unusual difficulty. Lawson Tait, who may be quoted as an authority upon this subject, has said that "he has not seen a preparation of interstitial pregnancy which could by any possibility have been diagnosed from

normal pregnancy, or pregnancy in one horn of a bilobed uterus during life."

During the growth of the fetus there is an absence of the usual physical signs of tubal pregnancy. The irregular contour of the uterus, due to the development of the fetus in the cornu, has nothing in itself of diagnostic value, as it might as readily be due to the presence of an interstitial soft fibroid tumor, or the impregnation of a bicornate or duplex uterus. But if after the second month the uterus of unequal contour grows and softens, and is subject to other changes characteristic of pregnancy, with tenderness, perhaps at the cornual portion in which the fetus is developing, with irregular discharges of blood of lighter color than usual, mixed, it may be, with shreddy masses consisting of portions of the decidua-vera, and accompanied by paroxysmal pains in the uterus, especially in the sensitive portion of the fundus near the cornu, a suspicion of interstitial gestation should be entertained.

If the tubes can be made out by an examination, the one on the side impregnated will be found to be shorter than the other, and the fundus will incline somewhat to the side opposite the shortened tube.

In a *post-mortem* examination of such cases, it may be difficult to differentiate interstitial gestation, and gestation in a bicornate uterus, from broad ligament pregnancy in which the fetus has ruptured the tube and passed out underneath the peritoneal covering, unless the test first applied by Kussmaul is remembered. This consists in noticing the relation assumed by the *round ligament* to the fetal mass. In interstitial or bicornate uterine pregnancy, it must arise from the surface of the sac at the outside, while in other forms of tubal gestation in which a rupture has occurred into the broad ligament, it must of necessity be located between the uterus and the mass, or pass within the sac.

Sacculation of the uterus from the pressure of tumors, etc., against the walls of the uterus during gestation, may

cause many of the physical signs of interstitial or bicornate uterine gestation as elicited by an ordinary bimanual examination; yet the presence of the tumor and its influence will always be taken into consideration in reaching a diagnosis in such cases. When it is possible to reach a conclusion during life in favor of either gestation in a bicornate uterus or interstitial gestation, we may expect the uterus to expel the product at the seventh or ninth month in the former case; but if it is interstitial it may be subjected to migratory changes which will make the history of the case very much more serious. In interstitial pregnancy the fetus develops toward the point of least resistance, either toward the outer portion of the tube, when it will become more fallopian than uterine, or toward the cavity of the uterus.

In the former case it will pursue about the usual course of tubal gestation and possibly rupture near the end of the third month with intra-abdominal hemorrhage—for which an abdominal section will be required, in order to save the patient from bleeding to death.

If it develops toward the uterine cavity, from having lodged very near to the uterine extremity of the tube, it may be expelled at the third or the seventh month of gestation by uterine contractions, with retention of the placenta as the only complication. To account for the retention of the placenta we have to bear in mind the tendency of the fetus to migrate from the placental site.

This tendency is well illustrated by the cases reported by Hunter, Hoffmeister, and Patuna, who found the fetus in the abdominal cavity and the placenta attached to the uterine wall at the cornu, the two being connected by the cord which ran from the placenta through the dilated tube for some distance, and then out through the perforation at the seat of rupture to join the fetus.

Burns quoted by Leishman gives an example in which the placenta was found in its normal position within the uterus and the fetus was within the fallopian tube, the cord

passing through the tube to the fetus. In both the cases reported in this article the placenta was in the tubal portion of the uterine wall, the fetus having been expelled from the cavity of the uterus about the third and the seventh month respectively. Braxton Hicks has reported a similar case quoted by Shroeder, but no mention is made of the delivery of the placenta, which is the most difficult part of the parturient process in such cases.

In most instances in which the child is expelled by uterine contractions, the subsequent treatment for retained placenta is conducted as though the condition were due to uterine inertia or an hour-glass contraction. There is a striking similarity between the latter condition and cornual pregnancy until a careful intra-uterine examination is made. With the cavity well dilated, instead of a circular band uniform on all sides, we find the cavity of the uterus leads up to a pouch at the cornu, into which the finger can only be introduced by pushing the uterus over to one side, so that the dilated cornu is uppermost. Into this pouch the placenta forceps or finger is introduced to extract the placenta. By delay in the completion of the third stage of labor in these cases septic infection is liable to occur and serious consequences ensue.

CASE I. The first case of the kind that came under my notice was that of a lady with a large family of children, who, at the age of about thirty-five years, became pregnant and sought the aid of an abortionist to bring on premature delivery. After the second month of her gestation, instrumental means were used but no result was attained, so that after the lapse of two weeks she sought his murderous aid the second time, and still no fetus was discharged, although considerable hemorrhage was caused by the operation. Some time after this, symptoms of septic infection developed, and her usual medical attendant was sent for, to whom a full confession of her crime was made. As there was every evidence of a retention of the placenta the cervix was well

dilated, but with the curette and placenta forceps no evidence of its presence could be detected, so that after further dilatation the finger was introduced, and in the right uterine cornu a placental mass could be made out, lodged in a pocket or pouch corresponding to the dilated tubal extremity. With the finger guiding the placental forceps the mass was removed entire and the cavity was afterward thoroughly irrigated, and the patient made a good recovery. The location of the products of gestation accounted for the assertion made by the abortionist that there could not be pregnancy present or his first operation would have resulted in delivery. It was only after the irritation induced by the second procedure that the destruction of the fetus was effected, but even then the uterus had no power to dislodge the placenta from such an unnatural location.

CASE II was a married lady about twenty-seven years of age, to whom I was called by her physician, Dr. J. B. Wertz, in January last. This patient had miscarried at the third month, three times consecutively, but at her last gestation went to the seventh month, and after a protracted labor gave birth to a stillborn child; but the placenta was not delivered by the usual means employed, and her physician determined that there was some abnormal condition present, and I was sent for. We found the patient in good condition, but very tired and sore, so that it was impossible to make an intra-uterine examination without an anæsthetic. As it was late at night we decided to wash out the cavity of the uterus and vaginal passage and tampon the vagina so that the rest and the tampon might stimulate uterine contractions, which had ceased entirely after the completion of the second stage.

In the morning her physician found her very much improved by the good night's rest, but there was no evidence of any effort of the uterus to expel the placenta, and according to our previous agreement I was requested to

see her again and remove the mass with the patient etherized. As soon as the cervix was well dilated the conditions delineated by the accompanying cut were made out.

The finger and the placental forceps both failed to touch the placenta until the fundus was tilted over to one side and the cornual portion was pressed down into the pelvic basin, over the finger, so to speak. After the removal of the mass the cavity was irrigated and the patient put to bed and directed to lay upon her right side so as to afford better drainage from the diverticulum. She made a good recovery,



except that she suffered from urinary incontinence to a slight extent, on account of which she was finally sent for an examination. Under the supposition that some cicatricial bands in the vagina might be the cause of the vesical trouble, I had her admitted into the hospital, and incised the bands—finding them to be congenital—and dilated the uterine cavity so as to make a thorough examination of the interior, and found, four months after the previous parturition, that there was still a small pouch at the original placental site. The congenital malformation of the vagina suggested the possibility of a duplex uterine cavity, but as

no partition could be found internally it was concluded that the case was one of interstitial gestation from perhaps some occlusion of the uterine orifice of the fallopian tube, which might have been congenital. Since her treatment in the hospital she has been enjoying her usual good health.

MULTIPLE PREGNANCIES.

BY

PROFESSOR ELIAS C. PRICE, M. D.

DURING my medical career I have attended eight cases of twin births, and was called to see a ninth case after the twins were born. A midwife attended the case, but I was sent for immediately afterward to see if everything was all right. Have also attended one case of triplets.

I attended my first case of twins September 27, 1849. She was in very strong pains when I got there. When she was first taken in labor, she claimed to have the colic, for which some of the old ladies gave her a strong tea made of red-pepper pods. As soon as the pains came on she would call lustily for the pepper tea. I asked her why she wanted the pepper tea. She said because it stopped the pains. She had a son and daughter, both strong and healthy, who grew to manhood and womanhood.

My next multiple case was triplets. Occurred January 15, 1851. I forget now whether the patient was 7 or $7\frac{1}{2}$ months advanced in pregnancy. The lady took a notion that she must have a new bonnet, and rode five miles on horseback to a village to get one and then rode five miles home. That night she was delivered of triplets. The first child was a head presentation; the second and third children the head and one hand presented; in each case I pushed the hand up, and each one then became a head presentation. In fifty-five minutes from the

time the first child came into the world the third one was born. Two of them weighed $3\frac{1}{2}$ pounds each, and one weighed 3 pounds, with their clothes on. One of them died with eclampsia when two weeks old; one of the others died under the care of another physician, with scarlet fever, at the age of twelve years; and the other, I believe, is living yet.

Attended the second twin case October 30, 1860. The patient was a slave. One child was born before I was sent for, the other was an elbow presentation. I turned, and delivered by the feet. Both children living. There was an extravasation of blood into one of the labia (it felt as large as a child's head), caused by the rupture of a varicose vein into the cellular tissue of one of the labia (pudendal hematocoele). It burst during a severe pain followed by a copious gush of blood. She came near fainting, and rallied very slowly under china Θ in whisky and water. In a note made immediately afterward in my journal, or day-book, I estimated the quantity of blood lost at one gallon.

The next case occurred January 14, 1876. Nothing peculiar about this case.

The next, September 3, 1880. I was obliged to use forceps with the first child, as the mother had a slight convulsion; the other was born without artificial aid.

April 3, 1882. The first child came all right; the second one the back part of the shoulders presented and one arm came down; pushed the arm back and applied the forceps over the shoulders, and delivered the child with its head pressing down on the abdomen; it was dead, of course.

June 15, 1889. This lady came very near dying during a previous (first) pregnancy with albuminuria. I was sent for in that pregnancy and found her in convulsions; her urine when boiled, with albumin added afterward, became solid albumin; it was two days before a single drop of urine rose on top of it. She miscarried at five months; had peritonitis; had a terrible diarrhea, and finally paralysis

of one side, from which she had not entirely recovered when I was called to see her in her second labor; she was only eight months advanced. On account of her extreme debility and deficient pains I was obliged to deliver both children with the forceps; one came forehead upward. Each child weighed five pounds when dressed. The mother made as good a recovery as could be expected. One of the children died during the second summer with cholera infantum, the other is still living.

June 7, 1891, was called to see a lady in labor, only seven months advanced; both children were very small. One was dead born, the other lived only a few minutes.

December 3, 1893, was called to see a lady in labor who was only $7\frac{1}{2}$ months advanced. I never saw anyone suffer as much during the whole period of pregnancy as she had done. One child was a vertex presentation, the other came forehead up. As in one of the other cases, the child was so small that I did not attempt to rotate the head. One child was delivered at 5.10 P. M., the other twenty minutes after; they weighed $4\frac{3}{4}$ pounds each when dressed. They both came very near dying with pemphigus when about ten days old. The stronger one of the two died on the 28th of last June, after an illness of thirty-six hours, with entero-colitis; the other one is now in the country; when I heard from it two months ago, it weighed eighteen pounds.

ON A CONSECUTIVE SERIES OF EIGHTY ABDOMINAL SECTIONS IN WOMEN.

BY

GEORGE BURFORD, M. D.

THIS is the first lengthy series of abdominal sections under homeopathic auspices in this country. I take this opportunity to note the value of homeopathic remedies

in the stadia alike of preparation and of convalescence, as well as to review those points which experience and a maturer judgment have emphasized in the course of the series.

To my homeopathic colleagues in general I owe my warmest thanks for the loyal support I have received in this arduous work, no less than for the consideration with which difficulties of time and space have been courteously acknowledged and borne. Our chief auxiliary in the anxious task of developing this section of British homeopathy has been the moral and personal support constantly rendered by those whose years and position have proved their wise devotion to the interests of homeopathy.

And if, in the judgment of any, there be doubt as to the necessity of this section of the forward movement, I would suggest the consideration of the flourishing homeopathic schools in America. Surgery has in these developed to a far larger proportionate extent than in England. The requirements of progress have called for the amalgamation of the art of the homeopathic physician with that of the surgeon, and this co-operation has materially increased the usefulness of both.

Some of the operations in my list—notably certain ovari-otomies—have been so complicated and difficult that the recovery was the joint product of both physician's and surgeon's art as co-ordinate factors. The use of homeopathic vulneraries before and after operation distinctly tends, in my experience, to insure an easy and uniform recovery; and a knowledge of the risks incident to all stages of the post-operational course allows a definite prophylaxis to be instituted from day to day. Were I asked to cite proofs of the preventative action of homeopathic remedies, I could adduce no more convincing evidence than is obtained from a well-ordered therapeutic routine before and after abdominal section. I have often seen cases thus managed, even after severe and protracted

operation, recover with absolutely no symptom to cause anxiety to the surgeon, or more than passing discomfort to the patient.

No enterprise of magnitude or importance is undertaken in daily life without corresponding preparation; and coeliotomy work is peculiarly exacting in the control of the conditions which make for success. My patients are carefully dieted for days beforehand, the renal secretion carefully estimated in point of quantity daily during this preparatory time, and the *primæ viæ* well and repeatedly evacuated. Rest in bed for a few days beforehand is insisted upon, and the general condition of the patient got into trim. Arnica, as the most requisite prophylactic, is systematically administered, and only infrequently requires supplementing by some other remedy.

THE THERAPEUTIC TREATMENT OF CASES AFTER ABDOMINAL SECTION.

I still adhere in the main to the principles and practice laid down by me in my paper presented to the British Homeopathic Congress in 1892. More and more I am convinced that the chief vogue of homeopathic remedies in these operations is prophylactic. To this end I employ arnica before and for twenty-four hours after the operation, as controlling the effects of traumatism, and stimulating the reparative processes which make for recovery. I use belladonna and mercurius corr. in alternation during the second, third, and fourth day, as tending to carry out the first surgical maxim, "a dry peritoneum," and lessening the susceptibility of the peritoneal tissue to inflammatory reaction.

I often use lycopodium during the fifth and sixth days, the indications for which are familiar to all operators who have witnessed the flood of urates which is discharged during this time, and often earlier, in properly progressing cases. Nitric acid is sometimes called for on account of

fleeting bladder irritation, and china ultimately as a general tonic.

Many of my recoveries have been so easy, peaceful, and unbroken as to compare most favorably with the course of convalescence in many a purely medical disorder. We now know clearly and definitely the natural history of recovery after abdominal section, and what the special risks are, incident to the peculiarities of any given case. A remedial prophylaxis constructed on this knowledge is, *in its sphere*, extremely valuable, and in a marked degree protective. The untoward events after coeliotomy are often so rapid in their evolution, and so lethal in their tendency, that it is often distinctly necessary to supplement therapeutics by other measures. These latter, however, in the majority of instances, fail alone to be of real service in dangerous crises, and septic peritonitis is usually scarcely to be checked by remedial or surgical measures, or both. This complication is to be met by prophylaxis, which is largely therapeutic.

Precise rules defining the sphere and time of operation in these cases cannot, for the most part, be laid down. But one pervading canon may be explicitly stated, *i. e.*, "that therapeutics in all suitable cases should have a full and fair trial ere operative measures be considered." There are certain cases that do not admit of delay, *e. g.*, in the early (operable) stages of cancer, of strangulated ovarian cysts, and where acute pressure symptoms are present. But in the majority of cases, where crises neither exist nor are impending, a full therapeutic trial should be made, and this in no spirit of pessimism.

The cases distribute themselves according to the types of lesion they represent; and I propose to select some of these for special remark, accompanied by the citation of illustrative cases.

OVARIOTOMY FOR OVARIAN CYSTS.

These cases number twenty-two in my list.

Some of these have been almost dramatic in their inci-

dent and detail. Most notable was the case of a lady in whom abdominal tumor had been diagnosed by an eminent specialist three years before, but erroneously as fibroid. She had Apostoli's electrolysis, she went to Woodhall Spa, and finally was given up as incurable and advised to await her fate with what fortitude she could muster. I do not think I ever saw such a distended abdomen in my life. The patient was unable to lie, or to move out of her room, or to get about at all for the enormous abdominal mass. I first tapped and withdrew a thousand ounces of fluid, thus allowing a diagnosis to be effected; and in a week's time I opened the abdomen, and removed a multilocular ovarian cyst, containing four hundred ounces of fluid remaining after the previous tapping. The recovery was uniform and satisfactory; and the patient, previously doomed to die, and within measurable distance of her end, was restored to active life. I saw her again a year afterward; she had put on two stones weight in flesh, and was looking ruddy and well.

Another case, sent by Dr. Goldsbrough, was similarly phenomenal in character. The patient had an abdominal section some four years previously for hydatids of the liver, and when I saw her had a greatly distended abdomen from ovarian cyst. It grew rapidly, and early operation was necessary. Many ounces of fluid were withdrawn, and the cyst wall endeavored to be removed, but the adhesions were dense and universal. There was scarcely a square inch of the whole surface not occupied by adhesion. After much trouble the pedicle was divided, the remaining adhesions separated, and the growth removed. It had so thrust the organs out of place that the abdomen seemed almost eviscerated.

The patient made steady progress until the fourth day, when pleurisy with effusion set in. No sooner had these symptoms abated than influenzal broncho-pneumonia occurred, and kept the temperature up for a fortnight. In

spite of these drawbacks the patient made a good recovery, left hospital within two months, and in six months' time was looking and feeling particularly well. Within ten months of the operation she had become *enciente*.

REMOVAL OF THE UTERINE APPENDAGES FOR CIRRHOSIS
AND CYSTIC DISEASE (HYDROPS FOLLICULORUM) OF
THE OVARIES.

These cases amount to thirteen in my list, and as this operation, in suitable cases, properly performed, is of immense value, I will briefly cite results to show what are the suitable cases, and what the proper operative method.

Dr. Edward Madden sent to me, in 1892, a lady suffering from constant abdominal pain, a subacute pyrexia, and complete inability to walk without support. There was also a persistent acrid leucorrhœa; and the history clearly indicated a specific infective process. Laparotomy was performed, and the appendages removed. The patient made an excellent recovery.

So enamored was she, fortified by her own experience, of the benefits of medical and surgical work that she, in the course of a year, went to Scotland to receive nurse's training. While there she did duty under one of the most brilliant Scotch abdominal surgeons. On narrating her own experience to him he professed the utmost surprise that these things could be done in homeopathy! But to return. Dr. Madden wrote, twelve months after operation: "Mrs. A. is now perfectly well in every way, and says that, could she have foreseen the relief and improvement to health which would follow within a year, she would willingly have gone through the operation a hundred times, rather than remain as she was before."

Dr. Hy. Shackleton sent a patient, æt. thirty-two, to me in 1893. She had been ailing for several years with constant pelvic pain, becoming progressively worse; with inability to follow her usual employment, and with general

deterioration in bodily health. She was under my observation for nearly a year, and no treatment seemed of the least avail. Dr. Shackleton's experience of this case, anterior to my seeing her, was similar. Chronic degeneration of the ovaries was diagnosed, and operation performed for their removal. She made a good convalescence.

Twelve months after operation she wrote: "As it is a year since my operation, I felt I must send to tell you I am getting on so well. I am able to do my work very nicely. It seems so pleasant to be able to be at work again, after fourteen years' *constant* suffering."

CASE V. Dr. Lough of Hastings sent a patient, a lady over forty, with metrorrhagia, persistent pelvic pain, and general systemic debility. The metrorrhagia was incessant and progressive. The pelvic pain was constant and considerable. The therapeutic treatment had been careful, patient, and varied; the uterus had been curetted; the patient had rested *ad nauseam*, but to no avail. On coming to town three further months were devoted, after consultation, to therapeutic and adjuvant treatment. No benefit ensued, and the course of events was steadily worse. Abdominal section was performed, the ovaries, cirrhotic and contracted, were removed, and the patient made a good recovery.

Since operation the hemorrhage, previously drenching, has entirely ceased; the pain, formerly severe and constant, has nearly quite vanished; and the general condition of the lady has vastly improved.

CÆLIOTOMY* FOR SOLID OVARIAN TUMOR.

For this comparatively rare form of abdominal tumor I have operated in four instances. One of these patients, æt.

* I prefer the more accurate term *cœliotomy* to *laparotomy*, the latter signifying a flank incision, while *cœliotomy* embraces all incisions through any part of the abdominal parietes. The embryological division into *cælon* and *enteron* gives a clear idea of the term *cœliotomy*.

sixteen, was the youngest on whom I have hitherto performed ovariectomy. It was for a large and rapidly growing sarcoma, the symptoms attending which had originated in a fall only four months anterior to the date of operation. She made a good recovery, but, unfortunately, recurrence took place, and in an inoperable form. *Passim*, I may say that rapidly growing solid tumors of the ovary, in young girls under twenty, are almost invariably sarcomata.

Another interesting case of solid tumor of the ovary was in a girl, æt. twenty-eight, the patient of Dr. E. A. Hall of Surbiton. Here the chief source of trouble to the patient was a fast increasing abdominal distention, which proved to be due to ascitic fluid, accompanying a solid tumor of the left ovary. This was, with some difficulty, removed, and examined by Dr. Johnstone, who reported it to be a well-marked instance of ovarian adenoma. The microscopical evidences of this were exceedingly clear and demonstrable. The patient made an unbroken recovery.

GYNATRESIA, WITH HEMATOMETRA, AND HEMATO-SALPINX.

I have had two cases of this lesion, requiring respectively primary and secondary abdominal section. One of these was in a girl æt. 15½ years, under the care of Dr. Madden, in whom peritoneal symptoms were present, and where the fallopian tubes were found black and distended to the point of imminent rupture. The uterus was a thinned out distended cavity, containing a quantity of thick black fluid, and having no kind of communication with the vagina. I removed the uterus, tubes, and ovaries, the patient making a complete recovery. She has since been through a premature climacteric, before the age of twenty; and is now a tall, well-developed, comely girl, with not the least obvious indication of the necessary ordeal through which she has passed.

EXTRA-UTERINE GESTATION.

One of the most striking of these cœliotomies was a case of ectopic gestation, successfully operated on. The patient had passed through the usually fatal crisis of rupture of the tube, with the anomalous result of extrusion of the fetus into the peritoneum and the retention of the placenta within the oviduct. I removed the suppurating embryo from the adventitious sac which had formed around it, also the placenta still *in situ* in the tube, the breach in the latter through which the fetus had passed having quite healed. Mr. Bland Sutton determined the age of the embryo as 22½ weeks, at which date, of course, tubal extrusion had occurred. The patient made an excellent recovery.

HYSTERECTOMY FOR UTERINE FIBROIDS.

My list comprises seven cases of this operation, all but one having recovered from this, a much more dangerous proceeding than ovariectomy.

In one case, sent by Dr. F. Shaw, there was the difficult and unusual complication of adherent pyo-salpinx, the fallopian tube containing some three ounces of pus; this patient made a continuous convalescence. In a second patient I saw, with Dr. Hall of Surbiton, the patient was in the throes of an attack of peritonitis; the abdomen was hugely distended with fibroid masses, and the local condition so unpromising that a specialist of repute had declined to operate some six years previously. So soon as the acute symptoms had lessened I opened the abdomen, tied off an enormous number of omental adhesions having vessels as large as quills, tapped an ovarian cyst embedded in the solid mass, and removed the big and bulky fibroid; this patient made an ultimately perfect recovery. In yet a third instance a fold of small intestine had become adherent to the broad ligament close to the uterus, and some careful special manipulation was requisite to avoid injury to the alimen-

tary tube. A large fibroid mass was then removed without difficulty, and the patient made an excellent recovery.

CÆLIOTOMY FOR TUBERCULAR PERITONITIS.

I have operated on two cases of this lesion, both patients recovering from operation. The first case was sent into hospital on account of considerable and increasing abdominal distention. Several loose stools, exactly resembling typhoid dejecta, were passed daily; dyspnœa, due to the pressure of the abdominal contents, was accompanied with a cyanotic hue of face. The abdomen was opened, a large quantity of fluid withdrawn, and the cavity flushed. The cyanosis disappeared, the dyspnœa also vanished, and the loose and frequent evacuations immediately ceased to trouble. Although well marked apical deposit existed, the patient lived for at least a twelvemonth after the operation, and benefited considerably from the relief gained. Up to date of my last hearing from her the fluid in the abdomen had not recurred.

EXCISION OF THE UTERUS FOR SUSPECTED · MALIGNANT DISEASE.

BY

DR. S. B. PARSONS.

WHEN the signs of malignant disease are present, whether in the initial or later stage, whether many or few, mild or severe, then the question of excision should be considered.

It is getting to be too frequent an occurrence to take out the uterus without just cause. A mere casual inspection of the parts, or with the addition thereto of subjective symptoms, is not always sufficient evidence that operative measures so severe are demanded; and in many cases

where some form of surgical treatment is required a partial excision will answer equally as well.

We see quite frequently cases in which there are nodular growths or ulcerating surfaces in the uterine cervix that appear to be the only diseased spots, and which would seem to need an excision only of the cervix to remove the whole diseased tissue. Such cases are often misleading, as a more thorough examination by dilatation of the cervix and intra-uterine inspection will show diseased centers within the uterine cavity. Hence, in forming a conclusion as to what course of treatment to pursue, we must carefully explore higher and more hidden surfaces than those within the reach of the eye and touch in the vaginal pouch. Every granulating wound of the cervix, even though it be located in an old laceration, does not call for a complete or partial removal of the uterine structure. There are a great many conditions with which cancer can be confounded, among which are sloughing myomata, syphilitic ulcerations, condylomata, erosions, severe diphtheritic and catarrhal inflammations, benign papillomata, etc.

Again, excision is not justifiable when the primary seat is in the vaginal wall or introitus, as it would be impossible to remove all or even a great part of the diseased mass. Though the uterus become eventually the seat of secondary deposit, its removal would not effect a cure nor for a moment check the onward march of the malady. No operative measures can be anything but palliative when the perimetritic structures are infiltrated, and yet there are occasions when, from the violence of the symptoms, the intense sufferings, the floodings, we may reasonably expect to relieve the patient from them by hysterectomy, with the knowledge that all involved tissues can be ablated, and may resort to severe measures in perfect justification of our course by feeling this to be the only means of ameliorating her pain and distress. This method is admissible at times, and the patient and family should be informed be-

forehand that the operation is not adopted as a means of cure, but palliative merely. These cases are exceptional ones, and should not be accepted as guides for the surgical treatment of cases less severely afflicted.

There are no reasonable grounds for a hope of success attending total excision unless the disease be not far advanced and limited within the uterine area. Once the cancer element invades the structures outside the uterus recovery from the operation is probable, but recovery from the disease is improbable. It is not an easy task to decide when the disease resides wholly within the uterine limits, as the different varieties of malignant growths that attack the uterus have different methods of disseminating their disease germs. Thus the sarcomas spread their evil influence by means of the blood channels, while the carcinomata progress through the lymph vessels.

Cervical lacerations are very commonly the original seat of malignant degenerations. While they exist they are a constant menace to the life of the woman, especially during the latter part of, at the close of, and immediately after the menstrual epoch has passed, and should be repaired as soon after the accident as is consistent with the circumstances of the patient.

Again, if all the diseased structures are removed, the patient will enjoy entire restoration of health. When hysterectomy is necessary and the operator has the election of mode, the vaginal method offers the best chances for and safest way to the patient.

There is less hemorrhage, less exposure of important structures and organs, less risk to the patient, and less labor for the surgeon. It is the quickest plan, and is much less liable to be attended with shock, which forms one of the most alarming conditions of laparo-hysterectomy.

I cannot agree with the statement that "a womb suspected of malignant disease should be speedily excised." I believe that every right-thinking physician and surgeon

will agree with me when I say that no womb should be removed on a mere suspicion that it is affected with malignant disease. It is an unjustifiable practice, unworthy the operator, unjust to the profession, and unjust to the patient.

MY EXPERIENCE IN MUTIPLE PREGNANCIES.

BY

WILL SCOTT MULLINS, M. A. I. H., M. D.

I AM not old, yet nineteen years ending on April 1, if I live, will find me with a deeper faith in the vital truths of *similia similibus curantur*, and a much broader comprehension of the mighty power for the good of all women when they assume the God-given glory of wearing the crown of motherhood, that can come to them and the embryonic life of their child by the proper pre-natal treatment, which lies, as the germ of unfolding physical beauty and mental strength to the off-spring, and a source of an easier and safer labor to the mother, in the mild tablets of powders.

In my nineteen years of practical experience as an accoucher, although the number of confinements attended by me has been several hundreds, I find recorded only four cases of multiple pregnancy, and I report them here as I find them recorded in my case book.

My first case of twins occurred on May 8, 1876—by a strange coincidence it was my birthday.

It was what was called "a pauper case" in the Illinois city where I lived at that time. It was also my second case of confinement. It was at the age when my mind was filled with the beautiful theoretical teachings of my alma mater. I knew all about *post-partum* hemorrhage, applying the forceps, turning and placenta prævia—that is, all that was

taught then—but the simple, practical details (and the most important) I was very ignorant of.

When I arrived at my destination I found no water (hot) to wash my hands, nor even a pinch of lard to grease my hand. Rolling up my sleeve I made a dive for the matrix, after waiting thirty minutes for a pain to come on; I had noticed previously that her abdomen was not very large for a nine-month pregnancy. As my hand passed up to the vagina it struck something that felt slimy and cold, and when it entered to the mouth of the womb I was for a moment paralyzed to find it tightly closed.

Then it dawned upon my sluggish mental faculties I had better examine the bed between the girl's legs. I did so, and I found two dead babies, all nicely covered up in one common amniotic sac, beautiful boys born out of wedlock and in a most humble hovel.

I called for a tub and laid the two babes in it, and then tore open the sac. After a careful examination I discovered a startling fact, the boys were fastened together, end to end, by the penis. I inquired of the mother, poor ignorant thing, when the babies were born? Her reply was "she did not know."

Eight years came and went after the above experience. I was then living in upper Kentucky and was called one afternoon at 5 P. M., to attend the wife of a laborer. She was in the second stage of labor. Abdomen unusually large and came to a point at the navel. External manipulation showed plainly the existence of at least two babies in the womb. The os was dilated about the size of a twenty-five cent piece. Examination during the pain showed a correct head presentation. The woman was very restless, constantly moving from place to place. Midnight came, the pains were frequent and severe, but the dilatation was the same as at 5 P. M. I applied belladonna ointment to the os, plenty of it. Gave the indicated internal remedy, and sat, and sat, and sat, and waited, until nine the next

morning. The pains never flagged, the os would not budge one hair breadth. The woman was in a cold perspiration. She lay on the bed moaning and begging for me to relieve her. I confess I did not know what to do. In sheer desperation I went to the drug store, got a hypodermic syringe and some morphine tablets. Returning to the house I sat fully one-half hour debating in my mind if was best after all to use the opiate.

The tears and beseeching of the woman touched into mercy the harp of my soul. I gave her one-fourth of a grain of the sedative. In thirty minutes she was some easier, but still suffering much; another quarter of a grain of morphine, then another, then in one hour another, and then in thirty minutes more I left her in the arms of the god of unconsciousness, with instructions to send for me when the pains came on. Two weeks and one day came and went; I was again called to attend the woman. Os fully dilated, a head presentation of one, and with good, strong expulsive pains I had delivered the woman of twins in just one hour.

By the Credé method I delivered two separate sacs, the cords separately being attached to each fetus.

One year later I had my third case, only a few hundred yards from my office. It was a negro woman, small in size and crippled in one leg. She was in bed with her clothes on.

Examination revealed a head presentation of one child. Abdomen not unusually large. Os dilated size of a half dollar in silver. Pains every five minutes with only a slight bulging of the bag of water. The darky was in good humor and jocund with several companions in the room. I excused myself to return to my office for some remedies. I was not gone ten minutes, when, upon my return and entering the room, the patient said "It is all over, doctor."

"Surely not," I replied.

"Look in the tub there, if you do not believe me." I

looked in the tub and there laid two white boy babies in separate membranes, the bag of waters still intact; one was still, the other was kicking vigorously. As they were the children of a respectable white man, a good church member, I debated in my mind what I ought to do: let it die and go hence as one to rise up in the last day as the accuser against the father's lust, or save it, trusting to the sagacity of its dusky mother to get away with it?

I saved it. But the next afternoon I heard it had been buried beside its twin brother in the part of the graveyard set apart for the colored people. No smile had come at their birth and no tear had been shed at their death. God saw it all.

My fourth case occurred last year, a case of abortion at the fourth month. Was called at 1 P. M. Found a foot extending out of the vagina. By traction on the feet and a vis-a-tergo motion on the abdomen I soon laid the fetus in a wash pan, then as I reached to feel for the membranes my hand came in contact with a little head.

The same method of procedure soon enabled me to deliver the other fetus, but I had not yet gotten my hand clear of the vagina when it was followed by stream of bright-red blood that in no time had saturated the bed. It was indeed a flood of blood. I called to the husband to hand me my instrument bag, as I emptied the womb of the clots and then formed a tampon with my hand.

By my directions he gave me the dull curette, but as I withdrew my hand to insert it, there came another gush of blood with a force of at least one horse power behind it. I again emptied the uterus, but before withdrawing my hand this time I firmly grasped the uterus with my left hand over the wall of the abdomen. With difficulty I inserted the curette, but I used it vigorously, peeling off the afterbirth. Firm contraction followed at once. Giving the patient two drams of ergot I left her to go home and change my bloody shirt for a clean one. The woman made a good

recovery and was again in the "family way" in thirty days. The negroes are like rabbits in following out the divine injunction of "multiplying and replenishing the earth." The fact is, the rich have left that kind of work to the poorer classes, but thanks be to God the poor and the middle classes find a joy that passeth understanding in the begetting of children for love's sake.

SOME REMARKS ON HYSTERECTOMY.*

BY

ALONZO BOOTHBY, M. D.

THE removal of the uterus is an operation that is frequently made, and it is recognized as one of the most important and difficult in the field of gynecology. Owing to the severity of this operation, it is necessary that anyone who undertakes it should be thoroughly familiar with his subject, and a surgeon of experience. For the benefit of those who do not operate, but are having cases that may require the removal of the uterus, it is proposed to present some of the conditions that are recognized as those in which favorable results may be expected from the operation.

Malignant disease of the uterus is the bane of the gynecologist. If seen when it first begins, it does not seem such a terrible thing, and the medical attendant is very apt to shut his eyes to the result that is impending. Probably the patient is told that there is some ulceration and thickening of the neck of the womb, which it is hoped may be cured in a short time. There may be slight hemorrhage between the menstrual periods or an excessive flow during menstruation, and if the patient is between forty and fifty, it is quite

* Read before the American Institute of Homeopathy.

likely to be attributed to the "change of life," and it is hoped will be corrected when that change is completed. It is a fact that there is a general belief among the laity, which is carelessly adopted by many physicians of limited knowledge and experience in these matters, that various troubles are to be expected at this period of life, and only require time to correct them. Unfortunately, these symptoms which are supposed to occur at this epoch are those that are present, and oftentimes the only ones present, in the earlier stages of cancer. Severe pain or marked disturbance of any other kind is not always or generally present until the later stages of this disease. This accounts for the fact that so many cases are not discovered until they have reached an alarming stage of progress. If the disease is a local one at first, its complete removal at this time promises a cure.

It is of the utmost importance that this critical period in the life of so many women should be watched with the greatest care, and when the suspected menopause is accompanied with much disturbance, the cause should be carefully sought, and if on examination there is found diseased tissue in the neck or any other part of the womb that is accessible to the scissors or curette, the microscope should be made use of to aid skilled inspection and touch in making the diagnosis. In every case where the diagnosis of malignant disease is reasonably sure very radical measures must be adopted. Complete removal of cancer of any part of the uterus can be assured only by total extirpation of that organ.

Another condition of the uterus frequently demanding total extirpation is the existence of one or more fibroid tumors growing in or upon some part of its substance. Fortunately, this is a non-malignant disease, and while the mortality from it, directly and indirectly, is considerable,—much greater than is generally supposed,—still it is slight in comparison with cancer.

In a large majority of the cases of uterine fibroids there is a chronic inflammatory condition with hypertrophy of the endometrium, which produces suffering, oftentimes making life a burden, and severe hemorrhage, which may manifest itself in an excessive menstruation, or as intermenstrual bleeding, till the patient is almost exsanguinated. In the larger tumors the disturbance from pressure in its various forms often becomes a serious matter. Septic inflammation of the tumor is liable to occur with degeneration, and the formation of pus with resulting peritonitis.

The menopause plays a deceptive rôle in this disease, as well as in cancer, although it is not so likely to obscure diagnosis as it is to mislead in regard to prognosis. Many patients and physicians have the idea that the "change of life" is likely to bring great relief; that the tumor will stop growing and the hemorrhage and pains cease.

Careful observation does not confirm this idea to the extent that has been generally supposed. On the contrary, a patient suffering from uterine fibroids, and especially the submucous and interstitial varieties, is liable to increased troubles and danger at the climacteric period. The menses, or a somewhat irregular periodical flow, are liable to be continued much beyond the usual period. This drain, with other disturbances, may exhaust the patient, and finally destroy life. There is accumulating evidence that the danger from uterine fibroids is much greater than was formerly supposed. Their treatment will depend in great measure upon the amount of disability and the danger to life. Many cases will demand the removal of the tumor, and the operation will be determined by the variety and attachments of the growth.

There are a large number of tumors that cannot be removed without the removal of the uterus with them. In order to determine whether a hysterectomy should be performed or not it is necessary to consider the danger of the operation as compared with the danger and suffering of the

patient without the operation. In making this comparison it must not be forgotten that the danger, on the one hand, from the operation is more immediate, and, on the other, that the suffering may be such as to make life a burden.

There are cases of procidentia which can be cured only by removal of the uterus. A persistent chronic inflammation of the uterus with enlargement that has resisted all other treatment for a long time, and especially where there are recurrent adenoid growths from its cavity which may not be malignant, will demand removal of the offending organ.

Since the new method of removing the entire uterus through the abdomen has been adopted, with improved technique, some have advocated the removal of this organ in all cases where it is necessary to remove diseased ovaries and tubes. This question is an important one, and demands careful consideration.

The first question to be answered is, Are the results better where there is a severe salpingitis with thickening and adhesion of the tubes, which may or may not be of gonorrheal origin, to remove the uterus along with its appendages? In favor of this course it is maintained that there is always an accompanying metritis and endometritis. This is probably true—at least it is true in many cases, but is there no other way of treating these troubles of the uterus with favorable results? We find where the ovaries and tubes are not involved that we can effect a cure by dilating the cervix and thoroughly curetting and carefully cleansing the cavity.

The evidence is conclusive, to my mind, that the curetting and washing out of the uterine cavity, at the same time that the ovaries and tubes are removed by a *cœliotomy*, can be done without adding to the risk of the operation, and should always be done where it is called for if there has not been an involvement of the appendages. But it is urged that by this method there is a short portion of the

tube from the uterine cavity to where it is tied and cut away which is still diseased and has not been reached by the operative measures. While this is true theoretically, it is a fact that the cases recover with a large degree of certainty. The recovery, so far as the general health of the patient is concerned, is quite as complete and permanent as it would be if the more radical operation had been performed.

If this position is correct, then the only remaining question is whether there is more danger in making a more extensive dissection in the pelvis and a longer incision through the abdominal wall, with a longer exposure of the patient to the necessary manipulations and the influence of the anæsthetic, than there would be in simply tying off and cutting away the ovaries and tubes. We should expect the danger would be increased, and clinical experience proves that this is true.

This very radical operation will not be justifiable except in extreme cases, where the uterus is diseased to such an extent that there is no prospect of permanent benefit from other measures, which will be found, as a rule, to depend upon an incipient malignancy or the existence of fibroids. Even where there are accompanying fibroids it is not always necessary to make an operation unless the symptoms indicate that the trouble is largely in the uterus itself. It is a positive fact that the removal of the ovaries and tubes has a marked effect in controlling the growth of uterine fibroids,—quite as much so as has the menopause,—and the annoying symptoms are relieved, and in many cases the tumor diminishes in size or altogether disappears.

Having briefly considered some of the conditions which demand the removal of the uterus, we have now to discuss the different methods of performing this operation.

There are three methods which require special consideration—vaginal, supra-vaginal, and abdominal hysterectomy. In many cases the method of operating will be determined

by the location of the disease, the size of growth, or some condition of the parts. In general, we believe that vaginal hysterectomy is the safest and most satisfactory for the cases that will permit of its being carried out. This can be done in most cases of cancer of the cervix, and for all conditions where the uterus is not so large as to prevent its being easily brought down through the pelvis. Sometimes, however, it is rendered very difficult on account of a senile condition of the vagina or a virginal lack of development of the parts, when it may be necessary or expedient to operate through the abdomen, although there is little enlargement of the parts to be removed. It is not my intention to describe any method in detail, as this is done in every text-book, but shall call your attention to some of the points in connection with the different methods of operating that seem to me to be of the most importance.

As the operation will be performed most frequently for cancer of the uterus, it is essential that all of the diseased tissue be removed. It is a well-recognized rule, when operating for a malignant growth in any part of the body, that whenever possible the incision should continue some distance beyond the apparently healthy tissue, and when an organ or gland is involved, it should be removed entire. It is on this account that there is less liability of a return of the disease from total extirpation than from partial extirpation. The same objection can and should be made to the method of dissecting the uterus out so as to leave the uterine arteries, and, of a necessity, the peritoneum and connective tissue in which this vessel is found. The danger from leaving the whole of the broad ligament with its covering of serous membrane and the large vessel running up through it to anastomose with the ovarian artery is far greater than any advantage that can be gained in making the operation. Everyone must have remarked the absence of late years of any effort of the surgeon to consider the vessels as modifying his operation, unless it be a vessel

large enough to endanger the part which it supplies or drains. It is in this very tissue that the disease frequently extends, and which it might have already invaded without being detected, but if left would soon show itself, to the destruction of the patient, even though the operator had made claim to great skill in having removed the uterus without tying a single vessel. By all means, when operating for malignant disease, tie the uterine and ovarian arteries, thereby cutting off the blood supply from that source, and allowing the removal of doubtful tissue.

In suitable cases, to one competent to make the operation, it can be done with reasonable expedition and the vessels all tied by aseptic absorbable ligatures, with the vaginal wall stitched to the peritoneal surface and closed so as to have the parts in apposition in such a way as to have the stump of the broad ligament project into the vagina, or at least project below the united surfaces of the peritoneum, while the rest of the denuded surface will be covered by mucous membrane or peritoneum, and the abdominal cavity entirely closed in. There seems to me to be no good reason in theory or practice why denuded surfaces should not be brought together here as well as elsewhere, and there is no reason why it cannot be done. Clamps may be used and no trouble follow if there is no septic matter in the neighborhood, but if such material is where it can come in contact with the part, then the clamp will, in the very nature of things, add to the danger, because it leaves exposed a large absorbing surface.

Next to vaginal hysterectomy as giving the lowest mortality in suitable cases (that is, where there is not too large a pedicle) is the operation through the abdomen with the stump treated externally,—supra-vaginal hysterectomy,—incomplete abdominal. Theoretically this is not an ideal operation, but practically the mortality is very low—lower, probably, than by any other method, so that there is good reason for continuing it when circumstances will permit.

The principal objection to this method is that, for the first day or two, the suffering is considerable, on account of constricting so large a pedicle and the pressure required to hold the parts in an unnatural position. Then, owing to the fact that the opening in the abdominal wall cannot be entirely closed, there is liable to follow a ventral hernia. With these objections it ought still to hold a prominent place on account of its safety, and when properly performed the objections can be obviated in great measure.

There are a few details in making this operation that should be emphasized. After the ligature has been adjusted the integument and peritoneum at the lower angle of the wound should be stitched together for a distance sufficient to inclose the pedicle, then the peritoneum below the ligature to the parietal layer so as to entirely cut off the abdominal cavity from the stump. The union will be more rapid and complete if the surfaces are scarified before they are brought together. In this way the cavity is protected from infection by the decaying tissue. Care is necessary in order to protect the pins which hold the stump externally so as not to press into the skin, thereby producing severe suffering, and which may result in cutting through the integument and causing extensive ulceration.

It is desirable that the constricted parts should be cut away as close to the needles as possible, without danger of their cutting out and letting the stump drop down. It is also important that the part be kept from taking on an active putrefactive process. This can be done by the use of strong antiseptics. At the end of a week the dead tissue may be cut away and the pins removed, for if the peritoneum below the ligature was thoroughly fastened to the abdominal wall, it will then be strong enough to protect the abdominal cavity. If stitches of silkworm gut have been inserted through the abdominal wall by the side of the pedicle at the time of operation, the opening may be closed by drawing the parts together and tying these sutures.

Instead of leaving such a quantity of dead tissue as is necessary in treating the pedicle in this way, it would seem much better to make an amputation of the body of the uterus about at the internal os, then unite the peritoneal edge of this stump to the parietal peritoneum at the lower angle of the wound. This stump should then be held up in an opening left for the purpose by strong silk or silkworm threads tied over a bar laid over the abdomen, and serving the purpose of the pins inserted through the stump in the other method. This would keep the severed uterine tissue external to the abdominal cavity where hemorrhage could be controlled, but would have none of the danger and inconveniences of a mass of dead tissue. The method seems feasible, but the writer cannot speak from experience.

The abdominal is the ideal method of removing the uterus. It makes an operation which allows of complete closure of the peritoneal cavity, and with no part of it exposed to lacerated or constricted tissue except when the ovaries are tied off, and in many cases this pedicle can be brought down so as to be entirely covered in from above and only project through the mucous membrane into the vagina.

So far, however, the mortality is greater than by vaginal or supra-vaginal hysterectomy. This is possibly due to the fact that the cases are largely those that could not be operated upon in any other way, and are on the whole much more unfavorable for any operation.

But in the present stage of experience, with a method that requires extensive dissection in the pelvis, with a long abdominal incision, with the whole of the abdominal contents exposed for some time to the air, and the necessary manipulations, it is necessary that the surgeon hesitate to adopt it unless he is obliged to.

Undoubtedly, the advantage that the operation through the vagina has over the abdominal is freedom from exposure of the bowels and less wounding of parts in no way

related to the removal of the disease. There are circumstances, however, that will render it necessary to go through the abdominal wall and then down into the vagina in order to take away the offending growth.

All abdominal operations involving the pelvic organs are more readily performed by putting the patient in the Trendelenberg position. The elevation of the hips is especially necessary when the dissection has to be carried down into the vagina, and the incline may advantageously be nearly at an angle of 45° . Reference has already been made to the necessity of a long abdominal incision. It is required for the purpose of giving room in which to work, as well as, in many cases, to allow of the delivery through it of a large tumor.

The next step is to remove the ovaries, which should be tied separately instead of with the tube, as is done when only the appendages are to be removed. Then the tube is cut away by beginning at its extremity and cutting just beneath it to the body of the uterus, and then the two layers of the broad ligament are to be united by a continuous suture, or a ligature may be inserted first by using a shoemaker's stitch, the thread being carried through by fine-pointed forceps made for such purpose.

If the disease is not malignant, a portion of the peritoneum on each side can be left and the dissection carried down close against the uterine tissue, so as to keep inside of the vessels and avoid the necessity of ligaturing at the upper part of the broad ligament. The peritoneum in front should be incised about half an inch above its reflection from the bladder, and behind far enough up to leave a long flap. The most important and difficult part of the operation consists in separating the cervix from the bladder and the ureters, so as to avoid wounding these important organs.

If the broad ligament has been cut away so as to leave the edges separated, these must be brought together and

then the vaginal mucous membrane united with the peritoneum, leaving separation enough for drainage from each side. The anterior and posterior layers of peritoneum are then united so as to entirely close the abdominal cavity and leave all denuded surfaces below it. A rubber drainage tube may be put in just below where these surfaces are united. It should be held in place by a catgut suture, which will hold as long as drainage of this kind is needed, and extend down into the vagina, care being taken that it does not extend outside.

Considerable discussion has been made over the amount and kind of drainage. An operation made as has been suggested will leave the peritoneal cavity entirely free from denuded surfaces, except possibly where the ovaries have been removed, and it can be perfectly cleansed and closed without danger of hemorrhage or any need of drainage more than would be in a simple ovariectomy. Drainage is required only where the dissection has been made in the pelvis, and can all be done quite as well without extending above the united edges of the peritoneum.

We must take occasion to condemn the use of iodoform gauze or any kind of gauze for drainage, here or in any other place. If it is where it will be kept moist, so as to allow fluids to drain out, it will allow them to pass in, and then becomes a source of great danger. To be convinced of its utter unreliability in ordinary cases on the surface one needs only to notice how it has become dry and effectually closed the opening in which it was inserted, and how the fluid beneath gushes out on its removal.

A brief recapitulation would bring before you these points: Hysterectomy should be resorted to in cancer, in fibroids which present symptoms seriously undermining the general health, and in some other conditions which do not yield to other measures. So far vaginal hysterectomy has given the best results, but it is limited to a certain class of cases. In certain other conditions the supra-vaginal method

is available and is a safe method, with certain objections. Abdominal hysterectomy is the only method that can be adopted in large tumors extending down into the pelvis, and where the disease is inaccessible from below on account of contracted vagina. But the operation is accompanied with considerable danger, and should not be resorted to where the ovaries and tubes are the seat of the principal difficulty.

UTERINE HEMORRHAGES.*

BY

WM. C. RICHARDSON, M. D.

UTERINE hemorrhages, not connected with parturition, are generally designated as menorrhagia and metrorrhagia, the first being an excessive or violent flow of blood coincident and connected with the menstrual function, while the latter refers to an active flow of blood from the uterus between and dissociated from menstruation.

Menorrhœa is a passive, not excessive, but long-continued flow associated with the menses, and metrorrhœa a passive but continuous flow not connected with menstruation.

The common causes of uterine hemorrhages are abortion, subinvolution, imprudent exercise or overwork during menstruation, fibroid tumors, polypi, moles, etc.

In the active varieties of hemorrhage, besides the administration of the indicated remedies, the chief of which are mentioned below, certain local measures must be resorted to. The application of cold-water compresses to the vulva and over the uterine region, with cold-water injections or the insertion of ice into the vagina or uterus, are among the first things resorted to usually, and are very efficacious.

* Read before the St. Louis Homeopathic Medical Society.

The application of a compress to the vulva saturated with common vinegar is frequently of great value. Where cold injections fail, then hot will frequently be found useful and should be given as hot as can be borne without burning the patient. Injections of a solution of persulphate of iron, an ounce to the pint of water, carefully carried into the uterus through the intra-uterine nozzle of a syringe introduced cautiously clear up to the fundus, will arrest a menorrhagia or metrorrhagia when all other means have failed. All injections into the vagina or uterus, especially the latter, should be made through a fountain syringe kept carefully and scrupulously aseptic.

Tamponing the vagina or uterus with gauze or cloth tents or candle wicking, all of which should be carefully sterilized before using, will often be found a convenient and useful method of controlling hemorrhages.

In the passive varieties of hemorrhage—that is, menorrhœas and metrorrhœas—the use of electricity will be found very beneficial, more particularly in the cases caused by fibroid tumors. Acidulated drinks prepared by adding ten drops of sulphuric or nitric acid to the pint of water will also be found useful, and the atmosphere of the room should be kept as cool as 60° Fahrenheit, if possible. The head should be kept low, no pillows allowed, and the hips elevated, with a hard mattress to lie on.

The most aggravating cases of hemorrhage to cure are those in which the flow is not sufficient to make the patient think it necessary to go to bed. It is absolutely necessary in the treatment of all hemorrhages to insist on the patient keeping her bed, and unless this rule is rigidly observed satisfactory results cannot be expected.

In cases of long-standing hemorrhages, dependent on a degenerated or disorganized condition of the mucous lining of the uterus, it has been the practice for some years to resort to the sharp curette, scraping out thoroughly with it the entire uterine cavity. This is a severe process, requir-

ing for its satisfactory performance the administration of an anæsthetic, and it is usually advised to follow this with a packing of the uterus with gauze or candle wicking, after swabbing or injecting out the uterus with iodine or some similar preparation.

That this proceeding is of utility and occasionally necessary is perhaps true, but in unskilled hands it is frequently a dangerous procedure, and even the skillful specialist sometimes finds it followed by serious or even fatal results.

The dull curette may be used, but it is claimed by some of the best authorities without much benefit. In my hands, however, it has been useful when followed by careful packing of the uterus with cloth tents or candle wicking. In many cases I find it unnecessary to use the curette at all, either dull or sharp, where a few months since I thought it indispensable. The reason I do not now often resort to the curette is because I have found that the uterus after rapid dilatation, if necessary, can be packed with medicated gauze, candle wicking, or, preferably, a cloth tent, and as good, if not better, results be obtained as when the curette is used.

I make a cloth tent by rolling compactly a bit of soft linen or cotton cloth about four inches square, making it about the size of an ordinary lead pencil. This can be introduced into the uterus, clear up to the fundus frequently, without any dilatation, and acts not only as a tampon, but by the pressure exerts a stimulating influence on the diseased mucous membrane that shortly restores it to health.

The cloth or other tents should be thoroughly sterilized, and may be medicated with permanganate of potash, ten grains to the ounce of water, or persulphate of iron solution, as above mentioned for injection. When so prepared, they may remain in the uterus twenty-four hours. Glyceroles of hydrastis, hamamelis, and pinus canadensis are also very useful when applied in this manner. I usually prepare

glyceroles by using a dram of the non-alcoholic tincture to the ounce of glycerine.

The tents may also be covered or saturated with a cerate made of vaseline and the first decimal trituration of the remedy desired in the proportion of a dram to the ounce.

A few of the most common remedies ordinarily found useful in uterine hemorrhages are :

China.—In cases where there is pallor, feeble pulse, cold surface and extremities, distended abdomen, fainting, drowsiness, intermittent flows pale and watery with discharge of large clots.

Crocus.—Metrorrhagia and menorrhagia, with a passive flow of very dark stringy blood and throbbing in the uterine region.

Ferrum.—Labor-like pains, with discharge of light-colored partly fluid and partly clotted blood, accompanied by great weakness.

Ipecac.—Profuse and continuous discharge of bright red blood, pain in the umbilical region, and continual nausea.

Sabina.—Discharge of bright red partly clotted blood, with violent forcing pains in the uterus.

Secale cor.—Copious flow of black liquid, foul-smelling blood, and a flabby, relaxed condition of the uterus.

Trillium.—In debilitated anæmic patients with passive continuous flow of bright red but fetid-smelling blood.

Ustilago maydis.—Long-continued menorrhagia, of a slow, persistent, oozing character, with a soft, spongy, and hypertrophied uterus.

PRURITUS ANI.*

BY

HENRY EDWIN SPALDING, M. D.

PRURITUS ANI is a disease, or rather a symptom of disease, that is most trying to the patient and often taxes to the utmost the skill of the physician. By the laity it is most frequently called "itching piles." At first the occasional itching, being easily borne, is taken little note of. Gradually, however, the itching occurs more frequently, is more intense, and the paroxysms are of longer duration, until it becomes an ever present menace to peace and comfort. It is usually worse at night, the warmth of the bed seeming to aggravate. The attacks may be brought on by sitting on a soft-cushioned chair, and especially by the irritation incident to carriage riding. Scratching or hard rubbing only increases the torture.

The trouble may extend from what was at first an irritable point at the verge of the anus until it involves the entire gluteal furrow. The scratching, rubbing, and chafing to which a chronic case is subjected give it the rough and cracked appearance of eczema, with which it is often confounded. Unlike most forms of eczema, the diseased surface gradually grows pale in color. The skin becomes less hard and is fissured toward the periphery. The line of demarcation between the diseased and the healthy integument, though discernible, is not marked. The red, rough, cracked, and thickened condition of the skin is gradually intensified toward the anus.

Various theories have been advanced as a cause for this trouble. As already intimated, it is most frequently mistaken for true eczema. Of course it is possible for eczema

* Read before the Massachusetts Surgical and Gynecological Society, December 12, 1894.

to be found here, for no portion of the integument is exempt from it, but other portions of the body being free from eczema, howsoever much this may resemble it, we may safely exclude that as the probable disease.

In children, and indeed in adults, the presence of pin-worms, the oxyuris vermicularis, may incite a slight pruritus, but the irritation will hardly extend far from the anus unless it be along the gluteal commissure, perhaps involving the vulva. I have never, however, seen any except a very trivial integumentary irritation caused by them. A careful examination during a paroxysm of itching will disclose them, and their extermination ends the trouble. It has been ascribed to a neurotic disturbance traceable to some disease of the brain or spinal cord. In this theory I believe that of two effects one is selected as a cause; that both are dependent upon one common cause, which being removed they simultaneously disappear. Our modern and better knowledge of reflex nervous disturbances, backed by experience and experiment, leads to this conclusion. An irritation, with or without stricture at the prostatic portion of the urethra, has been believed to be a cause of pruritus ani. Recognizing the fact that such troubles do arise from reflected neuroses, it seems quite possible that this may be true. It is more probable, however, that the strangury and other symptoms suggestive of urethral irritation are reflex from a diseased condition of the rectum. In short, it is safe to say that this is the rule in all cases except those of organic urethral stricture.

In all cases of pruritus ani experience has taught me to assume that there is present some structural disease of the rectum, and that this is usually attended with a sanious discharge that causes an irritation of the skin.

In fistula it is true that the discharge does not in all cases cause pruritus, but it often does, and almost invariably when the external opening is just at the verge of the anus, or in the gluteal furrow. When the opening

is at some distance from the anus on the side of the nates, it is seldom observed to any great degree. For this reason a careful search should be made for the opening of a fistulous sinus. I use the word "careful" in its fullest meaning, for it is often overlooked. I remember being consulted by a gentleman some ten years ago for an irritation around the anus, and at times a most excruciating pain after defecation. During the two years that he had been suffering he had been under the care of four physicians, all of high professional standing, and only one of them had discovered a fistulous opening. There was one, however, about a half an inch from the anus. It was not marked by any elevation or depression of its margins, and was so very small as to admit of only a fine filiform probe. The ordinary surgical treatment relieved him of all his troubles. These openings are most liable to escape notice in the very place where they oftenest cause pruritus—very near the anus. The papules, fissures, and crusts roughening the integument, make them easily overlooked. They may be hidden under some hemorrhoidal tab, or in the folds of the skin at the mucocutaneous junction. This form of fistula, opening just within the anus, does not ordinarily interfere with the sphincters, but is submucous in character.

Next to fistulæ I have found fissures a most common cause of pruritus. Many of these appear to have been originally submucous fistulæ, which have been torn open by some unusual effort at defecation. The pruritus had already become established, and the continued discharge was sufficient to keep up the irritation.

Occasionally a fissure or ulcer that does not involve the integumentary tissue, or is confined to uncommonly deep pockets, the *sacculi horneri*, may be the source of the trouble, or it may arise from an internal incomplete fistula. The rule is that where pruritus is found, a sanious, irritating discharge is extruded from some fistu-

lous opening, or from the anus, the product of some disease within.

So confident am I that some of these conditions are responsible for this so often intractable trouble that I always insist upon a most thorough examination, with the aid of an anæsthetic if necessary, and almost never fail to find convincing proof that my suspicions are well grounded.

The real disease having been discovered, it should be treated according to the established principles of orificial surgery, and a cure may be confidently promised. To overcome the mischief done to the integumentary tissues, any of a score of healing cerates or lotions may be used. Surgical interference in some form must in all cases precede all other efforts to cure, unless we would repeat the history of the profession as palliating, but seldom curing pruritus ani.

CEREBRAL HEMORRHAGE IN THE NEWBORN.

BY

A. I. HARVEY, M. D.

MARCH 31, 1892, I was called to attend a case of labor in a woman about twenty years of age with her first child. I found a normal presentation, and everything progressed satisfactorily. The child weighed about nine pounds, was well formed and apparently healthy. There were no complications during labor, and the mother was sick only six or eight hours in all. The child was washed and dressed in the usual manner, and took hold of the nipple with some indifference. After about six hours the child began to cry violently, twisting, squirming, and kicking as babies will with the colic. There was more or less rumbling in the bowels during the time, and although there were free movements of the bowels and frequent

passages of urine, no relief was experienced. I prescribed for the child without effect, and the parents and nurse, becoming alarmed lest the child should have convulsions, gave it three or four drops of soothing syrup. This afforded some rest during the night, and next morning when I saw the case my attention was called to a swelling on the top of the head in the right half of the anterior fontanel. The swelling had a doughy feel with slight fluctuations. The child was unconscious and breathed badly, and I gave a prognosis of death from pressure on the brain. The child died the same day, and by consent of the parents I made a slight examination by incision through the fontanel. On opening into the cranial cavity I found a clot of blood about the size of a hen's egg, firm, with some fluid blood surrounding it, located in the anterior lobe of the right hemisphere. I am unable to state whether the bleeding came from a ruptured artery or from a minute aneurism such as sometimes exists in the brain. My examination, owing to the wish of the parents, was only superficial, and I was not permitted to examine the child's brain at all.

So far as I am able to learn, these cases are rare. I find mention of only one case on record in which Billard found a clot in the left corpus striatum in an infant three days old.

I have never met anything like this before in my experience, and have never read anything in relation to the subject, except the single case referred to above (Wood's "Ref. Handbook," vol. i. p. 623).

This case is presented here simply because I believe it to be very unusual, and in the hope that in this array of talent more light may be thrown upon the subject.

APPLICATION OF THE FORCEPS.*

TRANSLATED BYB. F. UNDERWOOD, M. D.

THE forceps are applied to the cephalic extremity, generally upon the flexed head, the vertex; very exceptionally, even in large maternity, upon the deflected head, the face. Therefore in our description of the method of applying the forceps we shall have especially in view vertex presentations. The method of application for each one of the face positions being the same as for the corresponding position of the vertex, except in a few details, we will briefly describe the latter in a special paragraph.

We will commence with some general rules relative to the introduction and placing of the blades of the forceps to grasp the head. The free hand—the hand not holding the forceps—is introduced first and applied to the head, absolutely in the same place and in the manner that it is desired to apply the blade of the forceps, to which it will serve as a guide.

Now, there is space for the hand backward only, between the intersciatic arc and the head. In that arc a hand may penetrate in three different positions:

I.—A flat space before the coccyx in a position directly upon the sacrum.

II.—Obliquely to the left, between the coccyx and the left ischium, in position, left posterior.

III.—Obliquely to the right, between the coccyx and the right ischium, in position, right posterior.

Therefore the blade of the forceps, always guarded by one hand, can enter only in these three positions, directly posterior, left posterior, right posterior.

* From the French of Prof. Farabeuf and Dr. Varnier.

If we suppose that a blade of the forceps may enter of itself in the direct posterior position to be applied in the cephalic meridian directed to the symphysis of the coccyx, antero-posterior, that blade will descend and pull down the crochet or handle in a plane parallel to the plane of the meridian of application, that is to say, in the case cited, in an antero-posterior plane. The plane of the meridian of penetration, and that in which the handle must necessarily move, faces the east, as the face of the blade has an invariable movement which depends upon the pelvic curve of the forceps.

But the blade does not enter of itself; it is necessary to manage it by the handle, and the introduction will be good only if the hook is always held and lowered directly from above downward, without the least lateral deflection. The figures 1 and 2 show the presentation (fig. 1) and the penetration (fig. 2) of the left blade directly backward.

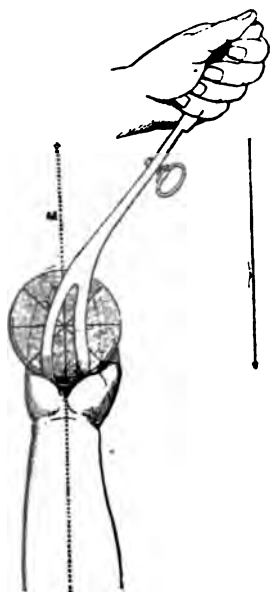


FIG. 1.

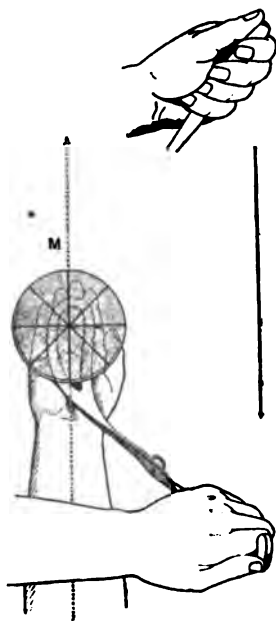


FIG. 2.

Figure 1. Presentation of the left blade to enter directly back of the head, represented by a shaded sphere upon the meridian line M, which covers the axis of the guiding hand. The axis of the blade presents on the same meridian, the handle is inclined to the left, and it is clear that if the blade penetrates without deviation the hook will descend in the plane indicated by the descending arrow, a plane parallel to the meridian of application.

Figure 2. Introduction of the left blade directly backward, its axis not departing from the axis of the guiding hand which covers the meridian line M. The hand which holds the hook high and to the left is lowered directly downward and entirely outside of the radial border of the

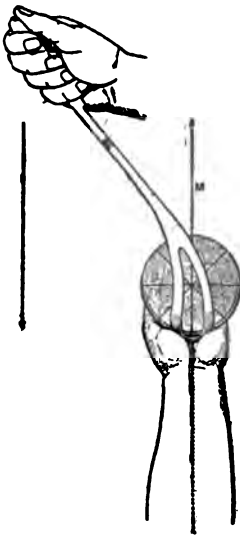


FIG. 3.

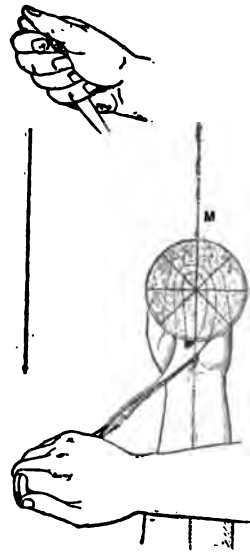


FIG. 4.

guiding forearm; the hook has not left the plane of descent nearly horizontal at the commencement; it has become nearly vertical at the end.

We can there see the indication of the meridian of application and of the plane in which the hook is lowered. The hand which controls the handle is lowered directly on a line outside of the radial border of the forearm of the guiding hand. It is thus that it must always necessarily be made; the proof is evident.

The figures 3 and 4 represent the same presentation (fig. 3) and the introduction (fig. 4) of the right blade. We see there that the hook descends in a vertical plane, antero-posterior, parallel to the meridian of application.

Figure 3. Presentation of the right blade for introduction backward upon the meridian line M, which covers the axis of the guiding hand. The descending arrow indicates the manner in which the hand which holds the handle should be depressed.

Figure 4. Introduction of the right blade directly backward, its axis gliding upon the axis of the guiding hand which covers the meridian line M. The hook descends directly in a plane parallel to the meridian of application.

If the left blade is to be placed in the left posterior position, or the right blade in the right posterior position, the plane of application becomes oblique. Therefore the hook will descend in an oblique plane parallel to the meridian of application, indicated always by the axis of the guiding hand and of the forearm.

Figures 5 and 6 show the introduction of the left blade in the left posterior position.

Figure 5. Presentation of the left blade to enter backward and to the left, upon the oblique meridian line M, which covers the axis of the guiding hand. The axis of the blade at the outset is joined with the meridian of application, which is here oblique; the handle is also raised a little to the right of the meridian plane. If the blade enters properly without deviation it is apparent that the hook will descend obliquely, in the line of the black arrow, in a plane parallel to the meridian of application.

Figure 6. Introduction of the left blade backward and to the left. Its axis does not quit the axis of the guiding hand which covers the meridian line of application M. The hand which holds the handle up and a little to the right of the median plane is lowered obliquely to the left, following the descending arrow; it is entirely outside of the radial bor-

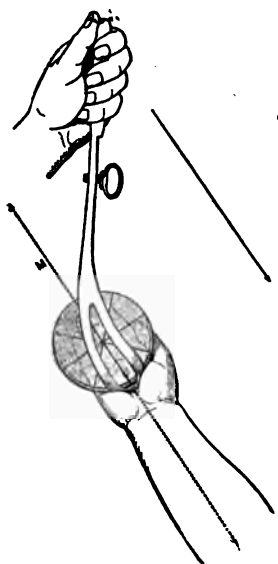


FIG. 5.

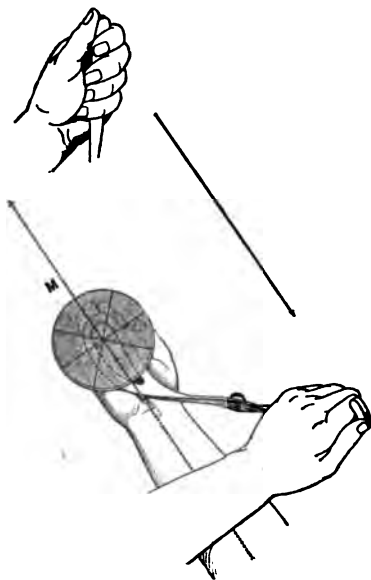


FIG. 6.

der of the guiding forearm. The hook, which was nearly horizontal at the beginning, becomes raised at the end, as to the plane in which it is lowered.

In the same manner figures 8 and 9 show the method of introducing the right blade in the right posterior position.

Figure 7. Presentation of the right blade to enter backward and to the right upon the oblique meridian line M, which covers the axis of the guiding hand. The descend-

ing arrow indicates the way in which the handle should be lowered to press regularly inward the blade.

Figure 8. Introduction of the right blade backward and to the right, its axis gliding upon the axis of the guiding hand which covers the meridian line of application, M.

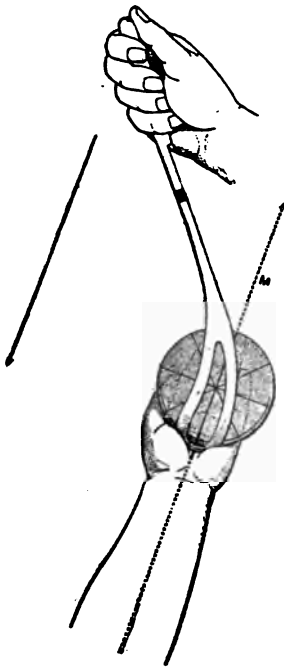


FIG. 7.

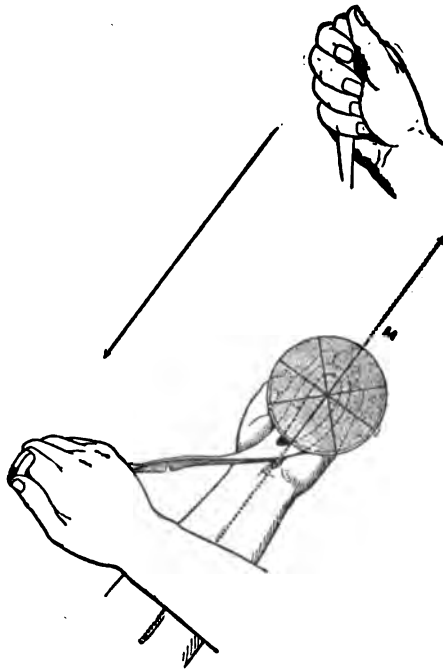


FIG. 8.

The hook lowered in the direction of the arrow descends obliquely, in a line parallel to the meridian of application.

Here again, in the oblique introduction, and therefore always, the hand which controls the blade should lower the hook in a plane parallel to the meridian of application and carry it downward outside of the forearm of the guiding hand.

But, if the forceps can be introduced only in the three posterior positions, direct, left, and right, what of the other positions? These are reached by a movement of circumduction more or less extended according to necessity.

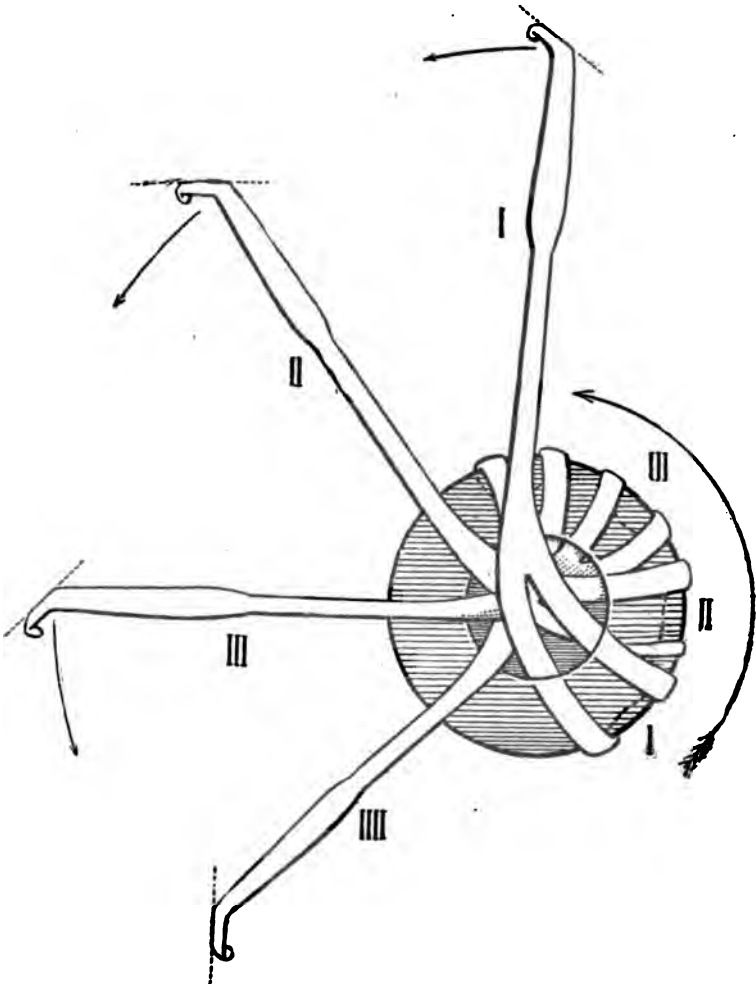


FIG. 9.

Figure 9. Evolution; which it is necessary to give to the handle to bring the left blade introduced in the left posterior position, I, into all the positions in which it may be useful. To carry the blade upon the side of the head,

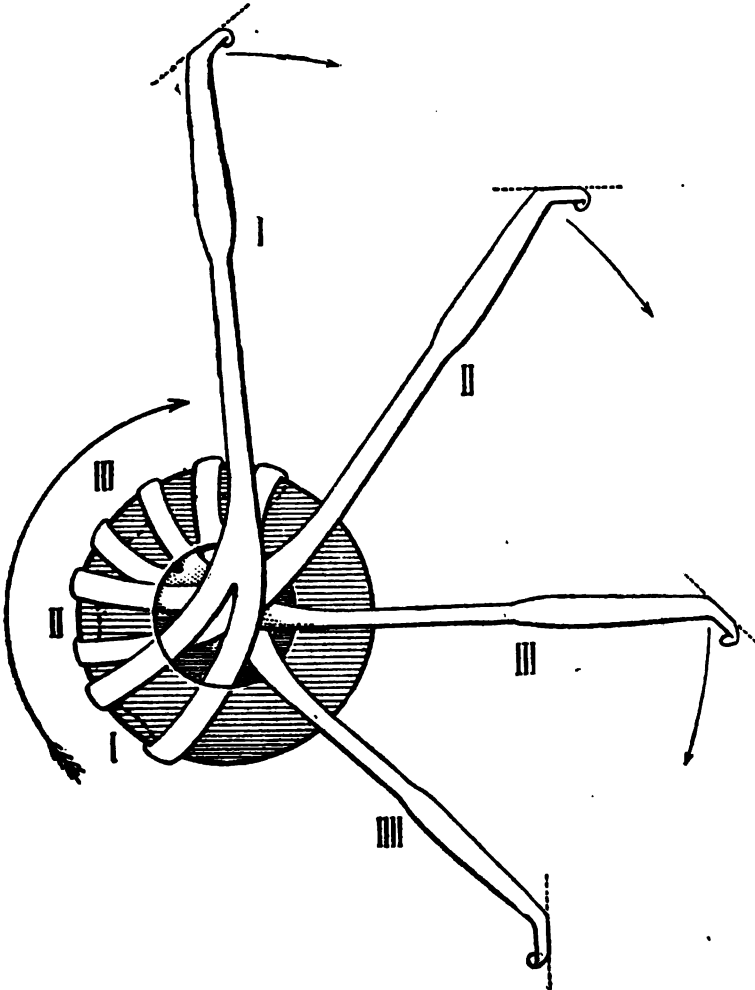


FIG. 10.

from I to II (45°), the handle passes in like manner from I to II, describing also an arc of 45° ; at the same time the hook, which was obliquely descendant, becomes entirely transverse. To bring the blade from II to III, the handle II is lowered to III, and the transverse hook becomes obliquely descendant. Finally, the handle descends to IIII, with the hook pendant, to carry the blade directly forward, and that is all that can be demanded from the forceps.

Figure 10. Evolution; which it is necessary to give to the handle to bring the right blade introduced in the right posterior position, I, into all the positions which may be needed. The handle, I, has the hook obliquely descendant; carried to the left in II (45°), the hook becomes transverse, the blade gliding upon the side of the head in II. The handle, II, is brought down in III, bringing forward the blade in III, and the hook becomes obliquely descendant. Finally, the handle, III, comes to IIII, carrying the hook downward and the blade directly forward.

Figures 9 and 10 demonstrate the mechanism. The one the management of the left blade, the other of the right blade, each one of the positions of introduction in one or the other of the three other positions: transverse, oblique anterior, or direct anterior, which it may occupy.

Observe the right blade represented by figure 10. Introduced in the right posterior position, I, the hand is raised and the hook directed to right side of the mother. Then in the transverse position, II, the handle is lowered, brought toward the maternal right, turned in 45° . It is, therefore, by the double movement, lowering, carrying forward, and the turning in 45° that, maneuvering the blade by the handle, it can be carried from the right posterior position of introduction, I, to the transverse position, II. Regard the same blade in the oblique anterior position III: the handle

is lowered still more, and the hook, which has been turned a second time in 45° , is now placed obliquely downward and to the right. By an equal and continuous movement the blade is carried from the transverse position, II, to the oblique anterior, III. In the same manner the blade will be brought into the anterior direct position if the handle be carried so as to hang obliquely downward, IIII, and if turned a third time in 45° the hook is finally directed directly downward toward the ground.

Thus, therefore, in three steps, which in practice are made without stopping, the blade, the right, is brought from the position of introduction, right posterior, to the anterior direct position; nothing more is necessary. This grand movement of the blade, amplified and made visible by the movement of the hook, a powerful agent and sure index, is not simply of a circular nature, because the operator at the same time that he turns the instrument must be careful to watch that it enters further. It may, therefore, be said that the blade describes a spheroidal movement encircling more and more the superior hemisphere of the head. It is the spiral movement of Mme. Lachapelle.

We proceed in practice:

The head flexed, the summit upon which we have to apply the forceps may be found in two situations very different, which should be studied separately. Either it has descended into the pelvis and has been arrested above the superior strait, or it has not yet passed the superior strait.

(To be continued.)

Gynecological Etchings.

NOTES AND QUERIES IN GYNECOLOGICAL THERAPEUTICS.

ABNORMAL conditions which are frequently observed in general practice was the subject offered by Dr. C. G. Higbee at the last meeting of the Institute, and he suggests some practical methods of treatment. In a general way he says we may conclude that, if there is a tumor in the pelvis that is solid or fluctuating, tender or comparatively insensible to pressure, causing hemorrhage or otherwise, if it is noticeably increasing in size, it is a case where a surgical operation will become necessary sooner or later. The general opinion is that cysts or abscesses of the fallopian tubes or ovaries cannot be cured by any known way except by surgery. Do not wait for the albumin in the urine to subside before treating that case; the same in relation to surgical interference. In the after-treatment of laparotomy morphine should be given only in rare cases. It simply masks the real manifestations of the disease. The majority of Dr. Higbee's patients take arnica for the first five days after an operation, unless there arise special indications for other remedies. After the abdominal wound has united gentle massage may be used two or three times a day, and the patient permitted to turn from side to side. Constipation is one of the most common symptoms met with in diseases of women, and this is caused by misplacement of the uterine apparatus. He advises sitting in the most normal position for evacuating the bowel, and afterward to lie down on the side one hour. After surgical operations upon the rectum, or after laparotomy, there is very likely to be contraction of the rectum in some part: then the trouble has been located at the lower extremity of the sigmoid flexure. Electrolysis gives much satisfaction. There is always more or less of blood poisoning in using the catheter for urinary tenesmus. Recommends position in bed and massage in addition to the homeopathic remedy. Use sterilized

* Reported specially for this JOURNAL.

hot water instead of strong carbolic acid or bichloride of mercury solutions for douches. Electricity is specially good in such cases.

Lactation and trauma are the most common causes of tumors in the breasts. All tumors of the breast should be viewed with suspicion.

Electricity can cure symptomatically all non-malignant tumors of the breasts; it will relieve in malignant type of tumors, but will not arrest the morbid growth. After removal by the knife it is well to use the electric cautery.

* * *

WITH regard to the statement concerning the advisability sooner or later of operating in all cases of tumor of the ovary, or tumors involving the broad ligament and fallopian tube, and in all cases where pus was present in the tube or ovary, Dr. Sheldon Leavitt said the question which was raised was chiefly: Ought we not to operate at once? or, in other words, as soon as the patient can be put in proper condition? We are all desirous of choosing the golden moment for operating, but just when that moment arrives is a matter upon which we are not altogether agreed. It is always desirable in these cases to take them at the earliest practicable moment. In the case of tumors we find it advisable, of course, to operate before the constitution has been affected materially, and before the system has been greatly reduced; and I believe that we should all exercise our best judgment in individual cases as to the precise moment for operation. In the beginning, when the tumor appears to be so situated as to give the woman no trouble or discomfort, we may allow it to proceed for a time; but if it is a case that has come to us for opinion and will pass out of our hands, then in the incipency of such cases it is probably wise to interfere. With regard to pus in the fallopian tube and ovary, the same rule applies which applies to pus in other parts of the body; that is to say, when pus is present in any part of the body, it is desirable to get it out and liberate it as soon as possible. But in connection with pus in the fallopian tube,—when we have, in other words, pyo-salpinx,—we should not forget that other measures than radical ones have been resorted to in some instances with considerable success. You all know, of course, that a few years ago Dr. Pope recommended the

thorough curettement of the uterine cavity and of the packing of it with iodoform gauze ; and others also have had some of these cases markedly improved and relieved, and some of them apparently cured. Whether this is true or not, in some of these cases it appears to be advisable to resort to this expedient, because, even though it does not cure the case, it puts it into a still better condition for more radical operation.

There is still a question in my mind whether it is advisable in the majority of cases to approach the pus in the ovary or in the tube through the abdomen or through the vagina. I believe there is a growing disposition on the part of operators to get at these collections through the vagina, performing, if necessary, vaginal hysterectomy, and thereby provide thorough drainage and enable the operator at the same time to make a complete removal of the offending involved parts. I have found that, in some instances where I approached these diseased structures through the abdominal walls, it is exceedingly difficult to get at them in a satisfactory manner ; the entire pelvis in some cases is so thoroughly roofed over by the adhesions that the parts cannot be reached and removed in a satisfactory way. They are sometimes torn away in our efforts to remove them. When approached from the vagina, and especially if the vaginal hysterectomy is performed, we can be more thorough and provide for the drainage, and after attention can be given more satisfactorily than when we operate through the abdomen.

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MESSAGE AFTER LAPAROTOMY.

WITH regard to the use of massage after a laparotomy for the purpose of breaking up or preventing adhesions, Dr. Higbee says this should be begun very early after the abdominal wound is healed. It is a question in my mind whether much would be accomplished by such procedure. I believe it, however, to be wise as a preventative of such adhesions to watch as carefully as we may the peristaltic action of the intestines. We can determine not alone by the movements of the bowels, but by the frequent passage of gas and by auscultation over the abdomen, whether this function is being properly performed or not. By applying

the stethoscope to the abdomen we may determine whether the bowel is quiet or whether it is going through its usual peristaltic motions ; and in the absence of a normal amount of this we may by the administration of certain remedies and measures influence it to perform its proper function.

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MAMMARY TUMORS AND THEIR REMOVAL.

IN regard to mammary tumors and their removal, we are led to believe by many that it is wise to have recourse to electricity in these cases. The fact is that no one can say positively, upon the appearance of a growth in the mammæ, whether that growth is malignant or not when it is first forming. But we may learn something as to the probability of malignancy from the age of the patient herself. Now, when such a growth, or any growth, develops within the mammæ in the case of a young woman our suspicions will not be as strong as when the growth is found in the breast of a woman perhaps who is reaching the age of forty or forty-five years. I believe, however, it is wise, when we find a development of this sort within the breast of a woman who is advanced in years, to take very little chance upon its development into a malignant growth. I believe that it is far better for us to assume that it is malignant, and institute its thorough removal. In the case of the younger woman I believe that we should have a little more latitude, and if we think best, for a time keeping the case under surveillance, we may apply electricity, and if it be nothing more than an adenoma, very likely it will disappear or be dispersed.

I have a case now in mind where such a growth developed in a woman about thirty-five years of age. There was not only the growth present, but there were the severe and even burning and lancinating pains. I felt that a radical operation ought to be performed, and so suggested to the husband ; but he would not listen to the suggestion for a moment. I was under the necessity in that case of using electricity, and after the woman had been under this kind of treatment for a period of some three months the growth had entirely disappeared, and has not yet recurred. That was some three or four years ago. Occasionally, she

tells me, she has the same sort of pain in that region, but nothing abnormal whatever is to be found.—*Dr. Sheldon Leavitt.*

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CARBOLIC ACID IN THE PERITONEAL CAVITY.

IN relation to the use of carbolic acid in the peritoneal cavity, I caution, said Dr. S. B. Parsons, against using it too strong, and advise against its use at all. I want to tell of my experience ; it may be a lesson to others. Dr. Comstock and I had a case in the Good Samaritan Hospital in St. Louis that was ripe for a laparotomy. It was a case of fallopian tumor. About that time a German friend of mine had been to Europe, and on his return he brought me the latest method of using the spray in laparotomy. It was a big instrument, as large almost as a Saratoga trunk, which had been used by the first German surgeon at that time. It was operated by steam, and carbolic acid was the solution that was employed. They were using the ten per cent. solution.

The method of using this spray was this : When you had begun your operation, the spray was thrown directly along the wound, so that you would kill every bug within two feet of that wound, so that none should get into the peritoneal cavity. I had a good assistant, and made every preparation to throw the spray on the wound and on my hands and instruments, and we did throughout the entire time until the wound was closed. I thought we were going to have a good result, and, so far as the spray was concerned, we did. The air was loaded with the carbolic acid. Our patient went on through the night fairly well, but the next morning the urine was just as black as ink, and she died in twenty-four hours from carbolic acid poisoning. I have never used it, or anything else in the way of an antiseptic, in the abdomen since. I don't use anything at all except sterilized water or a weak solution of salt water, but usually and preferably nothing but sterilized water ; and from this you can get just as good results and better than you can from the antiseptic douches. You can produce corrosive poisoning from a weak solution thrown into the peritoneal cavity. It is unsafe to throw anything in, for it is a very quick absorbent, and sometimes

poisoning will result. All patients are not equally susceptible. One can stand it, but the others cannot.

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DR. PRATT ON HYSTERECTOMY.

IS hysterectomy ever advisable? If so, in what cases and by what method is it best accomplished? Preventive medicine, said Dr. Pratt, outranks in importance all curative measures. Every honest man, he said, in the practice of medicine seeks to save rather than to destroy. Important sacrifices are frequently demanded in order to secure health, happiness, and sometimes a continuation of existence itself. Operative surgery is necessarily destructive in its nature, and is invariably an apology for better work. If voiced, it would say to the object of its consideration, be it tumor, abscess, gangrene, or other deserving pathology: "You are not only in a diseased condition yourself, but you are interfering with the bodily harmonies and endangering life itself. I am unable to cure you; I must, therefore, kill you. I know that my processes are painful, my measures are destructive, and am perfectly well aware that I mutilate, maim, and deface; but you are so sick that you cannot recover, and you are endangering the community of bodily organs, of which you are a part, and for the sake of the rest I must destroy you. I hurt that I may help, I ruin that I may rebuild, I kill that I may cure. You are sick and diseased beyond repair by drugs and other milder remedial measures, and you must sacrifice your existence that the rest of the body may live." This is the universal language of operative surgery. Its history is written in blood, and its memories recall a long panorama of ghastly sights and one continual echo of agonizing sounds. It is prolific of pain and deformity, and sometimes even death. It is disgusting in practice, horrible in contemplation, and its necessity is invariably a disaster. It plucks out eyes and cuts off limbs; it resects joints, trephines skulls, and removes ribs; it castrates both sexes, and in the last half century or more it extirpates uteri. Its entire history is one of destruction, and its monuments are deformities of all kinds. Nevertheless, this is but a pessimistic view of operative surgery, and better things can be said of it. There is a fascination about wounding and healing, about draw-

ing blood and stopping it, about cutting away disease and leaving health, that combines in its elements of attraction the innate love of mathematics, of punishment of the guilty, of reward of the good, of curiosity and heroism. Although it destroys sickly parts, its effects are to save those which are still well. While it causes temporary pain, it annihilates chronic distress; while it sometimes introduces its subjects to canes and crutches, it releases them from their beds of anguish; while it is a great destroyer of organic life, it only buries the dead, while in turn it saves the living from infection. It should always be a last resort; but, nevertheless, until we are better doctors the exigencies of humanity will demand that some of us must be surgeons. If doctors will permit inflammatory processes to destroy the usefulness of one eye, to threaten the life of the other, and it offend the entire body, surgeons will be needed to pluck it out.

The uterus is no exception. If it is diseased beyond repair, and by its removal health can be restored, pain relieved, and life made tolerable and prolonged, it should be doomed to extirpation just the same as any other offending organ. Its office in the female economy is an important one; it has cradled the race; it is our mother; its sanctuary is sacred to all that is or ever has been or ever can be dear to us. It has earned our lifelong love and respect, and should always at all times be treated with the tenderest consideration of which we are capable. If weak and enfeebled, it should be strengthened; if tottering in abnormal positions, it should be gently but firmly sustained in its proper place; if lacerated, it should be repaired; if fires of inflammation have been lighted in its recesses, they should be extinguished if possible; if irritable, it should be soothed; if sick, it should be made well. Would that this were always possible. Hysterectomy would then be uncalled for, and the word would disappear from the list of legitimate surgical procedures.

Dr. Pratt defined five classes of uterine difficulties which at the present time seem to call for vaginal hysterectomy, viz., fibroid degeneration, cancer, procidentia, tubal and ovarian disorganization, and aggravated cases of irritability or atrophy, which seem incurable, and which evidence unyielding and serious reflex disturbances.

CONTINUING, Dr. Pratt said there are five, to him, formidable objections to both the clamp and ligature methods of performing hysterectomy, of which the first is the injury which both these methods involve to the large plexuses of sympathetic nerve fibers which are contained between the folds of the broad ligaments.

In the castration of both sexes, he said, in the treatment of hemorrhoids, and frequently of fistulæ, in the closing of abdominal wounds, in the handling of pelvic stumps and pedicles, as well as in the treatment of broad ligaments by either the clamp or ligature methods of performing hysterectomy, bundles of sympathetic nerve fibers are ruthlessly impinged upon to the extent possibly bearable. A telegraph wire can be tapped anywhere along its course and messages can be received and sent at will. If sympathetic nerve trunks are likewise capable of heralding throughout the system the agony of distress occasioned by ligatures tightly placed about these delicate structures, the ligatures must constitute perpetual tickers of agonizing messages, which, as they extend in minutest detail throughout the entire bodily organism, can but spread dismay and anguish and consternation to the limit of their distribution.

Summing up, he would say, in briefer language, that his first objection to the clamp and ligature methods is the unnecessary impingement which they involve of large plexuses of sympathetic nerves.

His second objection is that both of these methods have a tendency to induce more or less extensive sloughs, with possibilities, if not probabilities, of septic infection. It would be considered a clumsy, unscientific, and dangerous method of amputating a limb to rot it off by ligation. To him it seemed equally clumsy, unscientific, and dangerous to choke to death hemorrhoidal tissue, stumps and pedicles, and broad ligaments.

His third objection was that the removal of the ovaries and tubes, which should always be taken away at the same time when possible, is rendered extremely difficult or impossible.

The fourth objection, especially to the clamp, is that it renders difficult or impossible the construction of a peritoneal floor by a coaptation of the severed margins of the peritoneum, thus con-

fining the wounded surfaces to the vaginal vault, where they are easily accessible for purposes of healing, drainage, and cleanliness.

His fifth and last objection is the occasional disaster which they precipitated of injury to the ureters.

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DR. PRATT, having elaborated these several objections, then recited his own newer method of performing vaginal hysterectomy, as follows :

By this method the lower extremity of the cervix is transfixed by guy ropes anteriorly and posteriorly. The uterus is dilated, cleansed, and firmly packed. While traction is being made upon the guy ropes by an assistant, the vagina is amputated as close to the lower extremity of the cervix as practicable. If bleeding points of any considerable size are encountered, the arteries are seized by large artery forceps, constructed on a curve so as to enable the assistant to keep their handles from obstructing the surgeon's view of the field of operation. Cole's spud is now employed to lift the tissues from the anterior and posterior surface of the cervix and body of the uterus, and the peritoneum is entered in front and behind at the points of reflexion upon the bladder and rectum. By careful dissection the tissues at the sides of the uterus are not severed from their attachments, great care being exercised to confine the dissection close to the uterus, at the same time avoiding mutilation of the organ. As the dissection proceeds upward the uterus gradually descends under gentle traction exercised by an assistant who holds the guy ropes, and in this manner the entire attachment of the broad ligament can be severed from the lateral margins of the uterus, and the complete removal of the organ, now freed from its connections, is accomplished. If during any part of the operation hemorrhage is encountered, it is a simple matter to seize the wounded blood vessel and apply torsion or ligature, care being exercised to isolate it from the neighboring tissues. In a large percentage of cases the extirpation of the uterus can be accomplished by this process without wounding a blood vessel of sufficient size to merit attention.

The practicability of this operation, Dr. Pratt explained, lies

in the fact that the large blood vessels in the neighborhood of the uterus ramify in the areolar tissue in which the organ is enveloped, and do not penetrate its substance, so that by hugging closely the uterine tissue in making the dissection they are undisturbed and consequently do not bleed, and require no hemostatic. If they can be left unmolested, a great point is gained, as they are afterward of service in healing the wound.

After the uterus has been removed the T forceps which were affixed to the upper margins of the broad ligaments are to be seized by the assistants on each side and sufficient traction exercised to enable the operator, by following the upper margin of the broad ligaments, to secure the fimbriated extremities of the fallopian tubes. These tubes are now to be removed by severing the double layer of peritoneum in whose free margin they lie embedded. The dissection should be made close to the tubes. It can be accomplished by beginning either at the severed or free end of the tubes, as the operator may elect. As the tubes are freed at their fimbriated extremities, the wounded margins of the peritoneum are to be seized by T forceps, so as to be placed at the disposal of the operator at his convenience. The ovaries are now sought for and removed. If they are embedded in inflammatory products, these are to be broken up and the ovaries enucleated from their bed. If they are free, this is easily seized.

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IN conclusion Dr. Pratt said: It is exceptional for ligatures to be necessitated in the process of removing either tubes or ovaries. The opening in the peritoneal cavity is now closed by means of two catgut sutures, purse-string sutures, which are applied either in the form of puckering strings about the wounded margins of the peritoneum, or the peritoneal edges are to be held together by cross-stitching. A small wad of cotton wrapped in antiseptically prepared silk and secured by a string is now inserted into the constricted cavity recently occupied by the uterus. The vagina is to be packed with iodoform gauze, and the operation is complete.

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FOLLOWING Dr. Pratt's remarks papers were read by Dr. Boothy (printed elsewhere in this number of the JOURNAL), by Dr. Foster, and by Dr. Lee (both printed in July, 1894, JOURNAL).

DR. JAMES W. WARD said : The early recognition of the danger of fibroid growths, especially of cystic fibroid growths or those decidedly myomatous growths, is well known. It is in the actual menopause and through influence where there are extensive omental adhesions that we are most troubled. The opening of the abdomen and the removal of the tubes and ovaries for the checking or destroying of these fibroid growths have often proven futile on account of the extensive omental adhesions. Still the great flood of nutritive blood passes to the growth, and thereby the injurious consequences are still continued. In our experience the fibroid cystic growths have been especially those that have been the subject of malignant degeneration. It has been well noted by one or more of the speakers that bilateral suppuration should certainly demand hysterectomy ; with unilateral this is not so. By thus conserving to the woman the appendage and the uterus, which has been made healthy in many cases, is all that is sufficient, and it is properly conservative surgery. There is another question, however, which has not been touched, and that is those cases of anæmic women that are depleted by prolonged illnesses, by recurrent peritonitis with universal cutting of the pelvic structure, where the surgeon would enter the abdomen only to find that the patient is moribund.

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THE entertaining and richly suggestive paper of Dr. Boothy is alike rich in nuggets of gold for the general practitioner as for the gynecologist. To the former it clearly points the limitation of his service, to the latter it accurately outlines the technique of operative procedure. Passing in review, we pause to plead with him for an early recognition of neoplasm in the pelvis, with especial emphasis upon malignant invasions, on the discovery of which alone depends permanent restoration and a minimum mortality.

The pathological changes requiring surgical intervention have been accurately stated. We believe that in the malignant degeneration of fibroid growths, especially the fibro-cystoma of the uterus, while there is less danger in the uterine fibroma, still the tendency for this degenerative process should ever confront us. There will be found cases of bilateral suppuration with the topography of

the pelvis so changed that the integrity of the uterus can no longer be conceded, which will demand total ablation of the pelvic organs. The long implantation of disease in the endometrium and submucous tissue, in the glands and epithelium, must constantly provoke leucorrhœa with attendant neurotic symptoms. In certain selected cases of advanced salpingo-oöphoritis having a chronic history, with universal adhesions and pus centers, where dissection through the abdomen promises at best to be tedious and imperfect, enucleation will be more safely accomplished by vaginal hysterectomy through the vaginal approaches. The old adhesions offer a barrier against the contamination of the peritoneal cavity, if the diseased appendages be more directly attacked, and better drainage for the pus centers secured.

In my experience two dangers especially concern us: indecisive operating and imperfect asepsis. The first is overcome by the deft hand that moves with precision, and the second by careful technique. My first exception will be the essayist's disbelief in gauze drainage. Where there has been extensive traumatism in the peritoneum, where intestines or omentum have been either matted or universally adhered, nothing can equal the gauze drain. The Michelitz drain of five per cent. of iodoform gauze, eighteen inches square, placed between surfaces adherent, will conduct off the effusions and prevent readhering of tissues; this to be removed in part in 24 to 48 hours, the remainder in 3 to 5 days. If no seepage coexists while *in situ*, you have a right to presume that the gauze is packed too tightly, which will be accompanied by a rapid pulse; gentle raising of the gauze will permit an easy outflow, with prompt lowering of the pulse. Sterilized gauze should be given the preference where no pus has been encountered, and the field can be made aseptic. Dr. Boothby refers to possible infection from the uterine end of the tube after excision of the adnexa. This can and should be removed in unilateral pyo-salpinx by a V-shaped incision and approximation of the surface. In vaginal hysterectomy, where the introitus is small, lateral or central perineal incision gives no additional risk and offer a large field for work. This permits by morcellement even tumors extending as high as the umbilicus to be removed. In our experience Péan's or Lee's clamps are quickly applied and vessels positively secured.

In certain cases of purulent or cancerous infection ligatures offer an additional danger. They consume time in application, and in some cases cannot be used without undue prolongation of operation.

In supra-vaginal hysterectomy we believe a pedicle can always be made small, and the wire *serre-nœud* should be applied not too low on the pedicle, closely to the pin transfixing it.

The elastic ligature as introduced by Keeper is quick of adjustment, and has the hearty indorsement of many talented operators, but in our experience is apt to be difficult of perfect asepsis, and make a deep conical wound to granulate. A tardy granulation encourages ventral hernia, so prolific after this operation.

Cutaneous sloughing can be wholly prevented by Sims' hysterectomy plates. We heartily disagree in the approximation of the wound close to the stump, or after the slough has necrosed. It will not heal by first intention, and a speedy recovery is not probable.

Total extirpation is the ideal operation, and in certain selected cases, where vaginal enucleation precedes the abdominal incision, can be made very promptly, and without much additional risk to the patient.

In closing, let me emphasize the marvelous advancement acquired in the management of multiple adhesions of the adnexa and in hysterectomy, supra-pubic or total, by the Trendelenburg position. Its influence upon the death rate of the future is not yet fully appreciated, besides giving to the practiced finger the confirmation of the eye.

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WHEN malignant disease attacks the uterus, said Dr. S. B. Parsons, then the question of hysterectomy may be considered ; but, nevertheless, we are apt to take every little thing for indications of malignancy. We are too apt to jump to the conclusions that it is something requires total ablation. We are inclined to run off in that direction, and not make good physicians and good surgeons in the way of good diagnosticians. Before we come to think of that we ought to make ourselves sure that we have a malignant disease. The myoma, erosion, syphilitic ulceration,

diphtheritic inflammation—all of these may assume at times conditions that will lead us to believe that we have got malignant disease present. Here is where we make the mistake. We are running off after this and that new idea, which I believe has its sphere of usefulness, and I believe should not go outside of that sphere. There are other operations that will answer better, and that will answer a great deal better than to place her in a position of one that goes about without a womb. It might not have a bad effect upon her after life,—I am not speaking about that,—but I do contend that we should carefully analyze every single individual case, and not be guided by others who have had a few such cases. There is no one but believes that when we have malignant disease at the cervix total extirpation is the best thing. I remember not many years ago that the high operation, as it was called, was great in vogue in this country, and they used to take off the cervix high up, and many of those cases had to be operated on again, simply because the disease had extended beyond the careful research of the operator. You can't tell when you have a nodular mass in the cervix ; you may decide that it is a malignant disease, and you think it is located there. You know your malignant disease travels. They don't travel like the sarcoma and the carcinoma ; they travel through the lymphatics ; and you think you have got one confined to the neck of the uterus, and you take off the neck and you find you have nodular masses now extending into the uterus. Total extirpation is the best when you have the malignant disease there. If you can remove that particle of diseased tissue, then I believe the patient may enjoy perfect restoration from the operation, but the recovery from the disease is very improbable. We are justified sometimes in operating when the case has assumed a particularly serious aspect. When you know you can't remove all the disease in those cases of extreme excruciating suffering, then I think you are justified in taking out the whole uterus, for nothing short of that will give even temporary relief, and even this cannot cure the case. It is only done for the relief of her suffering.

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DR. REUBEN LUDLAM said: We have undertaken almost too much with four papers covering such a large variety of subjects, for we have not only discussed the subject of hysterectomy,

the kinds and conditions which seem to require such operations, but a great many other things besides. The main part of the discussion has been between two questions properly : uterine castration and ovarian castration. I think if we could settle the indications for each of these we would have done a great work. I believe it is impossible to do it at the present writing ; but we can approximate it somewhat. Six years ago, when I was a pupil in Paris under Péan, uterine instead of ovarian castration was advocated in all diseases of the ovaries and tubes. It is not a new question, not as new as it seems. His argument then and now, his practice then and now, was to extirpate the uterus when the tubes and the ovaries were diseased, because in a large percentage of cases the disease of the appendages was consecutive with the uterus, because it was futile and foolish, he thought, clinically speaking, to take away the tubes and ovaries and leave a diseased uterus, leave a uterus without its proper blood supply ; with the approach of the menopause it would be a menace to the health of the woman, and, like a decayed tooth, it had better be taken out. His statistics have been as good in performing this operation as those of any ovariologists, wherever you may look for them—137 cases with 137 recoveries was one of his statements. Who can do any better than that by any method ? In every one of these cases he put the forceps across the broad ligament, without any special regard to the great sympathetic concern which we hear so much and care so little about.

Dr. Lee's statistics as to the clamp are as good as anybody's by any other method. It seems to me, speaking with all deference, there are cases where we may take away one ovary or one tube through the abdomen and leave the patient pretty well ; if she wants a first child, to have that child ; if she wants another child, to have that child. I can recall ten of my patients who were childless before the unilateral operation for the removal of the ovary and the tube. If I had taken away both tubes and ovaries, none of those women could have become mothers. Then we have newer resources that come on. Every little while we are perfectly decided that the tubes and ovaries are diseased ; we undertake to remove them, and we find them all healthy. We detach these adhesions, we leave the ovaries and tubes, and the

patient recovers and may conceive and carry the child to term. We don't need to take out the tubes and ovaries in those cases—that would be too much, going too far. So we had better be a little careful about this uterine castration indiscriminately. There are qualifying conditions. There is another operation, that which is to expose the ovary through the abdominal opening and stitch it up with very fine catgut and leave the ovary there ; or, instead of dissecting out or turning the Paquelin cautery on it, leave the uterus there and let her be a woman still. I have done this, and I have seen it done over and over again. I say this in a conservative spirit. If we can preserve one ovary and one tube, and if the uterus is not too badly diseased, and we can preserve it by Polk's operation, let us do it. We may open the abdomen to make a decision between these conditions. If we find the tubes and ovaries are both diseased, then make a vaginal hysterectomy and sew up the rent. I believe in vaginal hysterectomy. I make it almost every week, sometimes two or three times a week. I don't believe in having any stereotyped method. Adapt the expedients and resources to the case in point like men with brains. We are glad that there are new methods ; every modification leads to this : that we must keep to the old methods in a certain number of our cases. Dr. Lee didn't tell us, although he said he had thirty-four cases, that all got well. He did not say that he had operated with his own clamps. The truth is that theoretical objections against any mode of operation will not hold. We want all the resources that we can get ; we want our quiver full of arrows. The thing is to get the right in every case.

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DR. LEAVITT then said in regard to the scope of the operation : We have been told it has been applied chiefly to patients in malignant disease, also fibroid disease, and procidentia uteri, and we are informed that it is now advisable to employ it very largely also in reflex cases. I have no objection whatever to this statement if the case is such as to require it. I believe we will be fully justified in performing hysterectomy, and especially vaginal hysterectomy, for the relief of reflex phenomena when they are all of a certain character, when they are all of a character which menaces the life of the woman or her mental health. Now,

there is room for a considerable latitude of judgment. We must exercise our best judgment with regard to this. We may observe in a certain case a combination of symptoms mainly of a reflex character which leads us to fear for the life or sanity of that woman. If we are thoroughly convinced of this and really see the way, and we see no other means of relief than those that have not been thoroughly tried, then surely I should be in favor of hysterectomy ; this operation offers great inducement for the recovery of the patient. I do not believe it is wise for us, at the present time, at any rate, when we have resort to other measures for the relief of reflex phenomena which do not threaten the life of the woman immediately or remotely, which do not threaten her mental health, at once to conclude that the uterus is at fault, and proceed upon that hypothesis to remove it, because if we do I am satisfied that we will make an utter failure in many cases. Operating for the relief of reflex phenomena to any extent is a comparatively recent procedure. We do not know yet just what the effect will be ; perhaps reflex phenomena, all the more serious than the original ones in a large percentage of cases, may be developed. I say that work of this sort is of a tentative nature, or should be, and that we should proceed with caution and deliberation.

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CONTINUING the subject, Dr. O. S. Runnels said : We all know what a cancer will do when it once gets started ; the great question is to find out early whether it is a cancer or not ; whether this womb is acting in a way that would subject her to physical suspicion that all is not right.

I believe there is a vast misconception about the change of life. Women will go on from forty-five to fifty-three to fifty-five and lay all trouble to the change of life. Now, I know that there is lots of mischief that is brought into line in relation to that misconception. I believe that the change of life is void of any mischief if a woman is well. She has two changes—puberty and climacteric. If she is embarrassed physically, she will have trouble when she comes to that change of life. So it is with every woman of thirty. If she is a perfectly healthy woman, she will glide out of her menses as a duck swims out of one lagoon to another. It means simply that she has quit menstruating. But

if you have gathered cicatrices along the way, if you have embarrassed ovaries or tubes or stenosed cervixes,—something to embarrass the flow or set up an irritation in those tissues,—then you don't know what is going to happen. You may have menorrhagia continuing on and on, as is so often the case among the laity. It is nothing but the change of life with ninety-nine out of one hundred, say the laity, when in reality it may be going into cancer. I say we want to wipe out all that nonsense and understand what is the change of life, so that we can diagnosticate these things from their very inception.

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THE AMERICAN OPERATION FOR HEMORRHOIDS.

IF there is one operation of modern origin, said Dr. W. E. Green, that deserves more than any other to have an established status, it is that known as the American operation. It has been performed by hundreds of physicians, in the aggregate thousands of times, and it has been written upon by innumerable authors, whose articles have been published in all the important journals of our school. It certainly seems that by now the profession should be in possession of every fact known about it, either for good or bad ; yet we are forced to believe that such is not the case. While there have been occasional whisperings that all was not well, and that many accidents, failures, and disasters have been met with, there are but few who have been outspoken upon the subject. The attention of the entire profession appears to have been more largely directed to the curative results that have followed its performance than to any of its shortcomings. In fact, if we are to judge only by what we read upon the subject, we are led to believe that it is an operation without fault or failure, when the truth is that, like every other important operation, it has its drawbacks, and they are many and varied. An enumeration of some of the most varied may not be amiss.

One of the most frequent and disastrous consequences is loss of functional power of the sphincter muscles, entailing incontinence of the fæces. This is caused by over-dilatation, rupture or severing of the muscles, stricture, and atony of old age ; and it is an accident truly to be deplored. Imagine a sensitive, refined

woman with a constant leakage at the anal orifice ; one cannot conceive of a more distressing mutilation to inflict upon a person than this. During the past year I have had three or four letters of inquiry from patients so afflicted, and now in my vicinity of several others. At one time, in another town, I met in one boarding house three women who had been maimed in this way. Stricture, eversion of the mucous membrane, ulcerations, and erosions of the gut also belong to the category.

Considering these facts, the question arises, Is it a justifiable operation ? In ordinary cases I do not think it is ; but in severe hemorrhoids, and conditions where the anal outlet is extensively diseased, entailing serious reflex lesions, it is the only successful method. These cases are often desperate in character, have resisted every form of treatment, therefore risks that promise so much are justifiable. The operation is, in limitation, a legitimate one and it has come to stay. In a vast majority of cases the cause of failure lies not in the operation, for it is brilliant in conception and classic in design, but in the operator and his methods ; judgment, care, skill, and experience can eliminate every element of defect. Official surgery, by its glittering promises and magical achievements, has developed an army of operators, many of whom do not possess either the qualifications or training necessary to the performance of successful surgery. This, and the recklessness or inexperience of others, is accountable for many of the grievances.

Two years ago I reported a series of twenty-seven cases of excision, with results. Since that time I have done the American operation fifty-two times ; almost every case has been carefully noted and kept under observation until now. Therefore I feel justified in offering them now as evidence in this important trial. It is well known that, owing to the many complications that are manifest in chronic diseases, it is impossible to adhere to a nosological diagnosis in every patient ; and it must be further understood that in these operations the American was not alone done—every form of official surgery, to suit the demands of the individual cases, was associated with it.

[Dr. Green then read a table of fifty-one cases.]

The complications that followed the operations were numerous,

and some of them required much more care and attention in their management. Of these cases twenty-five united by first intention, but were followed by stricture ; one of these required secondary operation under anæsthetic. The stricture was incised with a scalpel in several places, and divulsed with the bivalve, and the patulency of the opening was maintained by the use of the bivalve every other day, until all tendency to contraction ceased. All secondary operations for stricture were managed in this way. Three of the others were treated by gradual dilatation with the soft rubber bougie, and three were dilated by the patients themselves, by the daily introduction into the bowel of two or three fingers. Four cases recovered by partial union, all of which were strictured ; one of these was treated by secondary operation, two by gradual dilatation with bougies, and one with the fingers. Six cases failed to unite and recovered by granulation with resultant stricture. All were treated by secondary operations. Five had eversion of the mucous membrane, or ectropion ani. In two the everted mucous membrane was cut away well within the anal orifice, and a flap of skin dissected up from the nates, and slipped up and united to the mucous membrane.

Elderly patients, he said, who suffer from an atonic condition of the sphincter are not proper subjects for the American operation ; the hemorrhoids should be removed by some other method. The one I have adopted is to cut away, down to the muscle, by an elliptical incision, and close the wound by two or three fine catgut sutures. One of the most disagreeable consequences entailed by the operation is the inability to control the gases, and in some cases any watery accumulations. This is owing to the change which the operation produces in the anatomical structures of the intra-sphinctral region. The rectal mucous membrane there is gathered in a series of perpendicular ridges, the columnæ recti of Morgagni ; running transversely to these, one-third of an inch within the anal orifice, is a row of folds extending from column to column that arch upward, forming a valve-like projection, which evidently have a physiological function. These folds can be smoothed out with a blunt hook. In operating for pockets the hook often catches in them, and I have seen them cut away under the impression that it had engaged in a pocket.

These folds act much as do the valves of the heart or veins ; when the sphincters are closed, they rest against the opening walls, and prevent the escape of gases or fluids in the same manner as those in the veins prevent a reflux of blood. When the sphincter muscles are dilated in a passage, they are put upon the stretch, thrown back out of the way, and offer no resistance.

One of the most aggravating complications that may arise is eversion or turning out of the mucous membrane. The irritation set up by this accident is hardly equaled by the original trouble. It is caused by excising too much of the skin, so that the mucous membrane cannot contract within the anal orifice. To prevent this many circumstances must be taken into consideration : the age of the patient, her condition of fleshiness, the tonicity or flabbiness of the skin, the redundancy of tissue, and the formation of the anal region. Only experience can teach one just how to make the excision in every case. The dissections should only be carried down to the point at which we desire to make the excision, as long flaps are not desirable. If drawn too far within the gut, they are liable not to unite, turn out, and in healing leave an ugly, uneven condition. Thin flaps that are wanting in vascularity are also liable to non-union. It requires nice judgment indeed to always get the skin flaps exactly right ; I know of no other operation in which experience counts for more. After excision has been made the gut should be grasped with the forceps, drawn down, and dissected from its attachments for at least half an inch upward to give greater surface for adhesions. Another question of importance is the suturing. The interrupted suture is preferable to the continuous ; it brings the parts up more accurately, is less liable to pucker or invert the edges, and generally gives better results. After the operation the rectum should be thoroughly dried, so there will be no subsequent oozing, the wound dusted with iodoform, a large cone-like pad of aseptic gauze placed against the anus, and sustained in position by a bandage that gives firm pressure. This prevents bleeding, extravasation, and swelling, and favors healing. It should not be changed as long as the parts remain dry, though after twenty-four hours the bandage may be somewhat loosened. Whenever moisture appears, the parts should be douched, dried, and re-

dressed. Nothing but liquid food should be given, and under no consideration should milk be allowed until after the bowels are moved ; this should be by both physic and enema, at the expiration of the sixth day, after the stitches have been absorbed.

Owing to many complications that may follow, I never do the American operation when a less formidable one will answer. When one undertakes it, his mind is never at ease until the patient is discharged cured, for the aftertreatment is often tedious and annoying, yet we must concede that, if properly managed, ultimate recovery will follow in almost every case.

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DR. ALONZO BOOTHBY said that he made a different operation from that described by the last speaker. We have here in the anus this pile-bearing inch, at the upper edge of which is a line quite firmly attached, and the hemorrhoids will project out below and sometimes above it. Now, when they are projecting out below, it seems to me a much better way. I have not found the troubles that have been spoken of by the other speakers. Instead of making an incision and taking out the pile-bearing tissue from below upward, I make a circle around, first taking off about an eighth of an inch, never going clear round the mucous membrane. By thus doing the operation I have not encountered the difficulties spoken of by the essayist and the gentlemen who have discussed the paper.

Obstetrics.*

HEMORRHAGE FROM THE BREAST.

REGARDING the changing of the proper remedy in a case of any abnormality in the nursing or consumption of the milk, said Dr. W. H. Hanchett in the discussion of article by Dr. Custis, published in the July, 1894, JOURNAL, I have had one case somewhat similar to the case of Dr. Custis, and I believe in the principle that he has advanced : that we have only one resort,

* Reported especially for this JOURNAL.

namely, the proper homeopathic remedy to the case. One woman will say to you : "I cannot nurse my child. I have had three children and have never been able to nurse any of them." They will tell you that their previous attendant, the physician in charge before, said that there was a lack of supply and the milk ducts were not open, and the result would be that the child was immediately put on the bottle. This course costs the lives of hundreds of children. This has been a common custom simply because they thought that the child could not be nursed, and perhaps others would resort to beer or something to supply milk. I have found in my experience that if I change the remedy particularly indicated to the patient I subsequently had trouble in getting the mammary gland to do its work.

I have in mind a case of a perfect *pulsatilla* woman, where she claimed that after her three first confinements she had been compelled to put the child on the bottle each time, for practically no reason only that the milk did not start. Through the use of *pulsatilla* in a few days a perfect flow of milk ensued. I have found that some constitutional tendency was back of this trouble. In our literature we have remedies that will control this question of lactation.

There is probably not one case in twenty but what the child might have been nursed by the mother if the proper remedy had been used, and the gland had been made to do its normal work.

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THE last speaker has touched upon one point which ought to interest every good physician, nurse, and mother. The question is frequently asked by the young mother (especially if German): "Shall I drink beer to make milk?" My answer is somewhat like this : "If you want to have your child feed on brewery slops, yes." I think as physicians we ought to be on the right side in this matter. The compiled statistics of England show that there are 25,000 idiots, for the reason that during the 9 months of gestation and the 13 months of lactation the English mothers are constantly drinking beer, ale, porter, half-and-half, and most of the nurses that you get to-day want their ale, beer, or porter.

You may drink 12 glasses of beer a day for 23 years and you will get as much nourishment as you would from one loaf of rye bread. Cold water is the best thing.—*Dr. L. C. Grosvenor.*

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I HEARTILY agree with the previous speaker's remarks. The title of the paper is "Hemorrhage from the Breast." I do not remember that I ever had a case of hemorrhage from the breast during lactation. However, I will state that during two or more years I have had under observation a patient whose left breast has seemed injured. During all this time there has been a discharge from the nipple of this breast. At times it is simply a little bloody discharge, and at times it would appear to be pure blood. Do not understand me that this discharge is excessive; it is simply sufficient to require the use of a little absorbent, at times more abundant, at times less abundant; and I know positively it is blood, from the stain upon the pad that is worn, and from the microscopical examination of the exudation. I think I stated that this breast was somewhat injured. It is not tender, and the patient suffers from no pain, and I have repeatedly endeavored to discover the presence of a distinct tumor. Sometimes when I have examined it it seemed that deep down in the gland was something somewhat of the character of a tumor, but I would conclude that it was simply the glandular tissue. I have endeavored to treat this patient homeopathically for about two years. Her general health is very good, but as regards the curative effect of my treatment it is nil. This patient I think is thirty-seven or thirty-eight. She is the mother of five children, and she has generally been obliged to supplement the lactation with artificial food.—*Dr. H. W. Westover.*

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ON this question of beer in relation to lactation, I do not believe in broad remarks in condemnation of anything. The use of beer depends upon its applicability to any given case. I do not believe any milk pure, but I do believe that the best kind of beer is a help during lactation; and my method is, when a patient asks for beer, I generally refer them to some imported beer with which I have had some experience; but if these patients as the result of the use of beer have diarrhea, or if the stool of the

child is too loose, then stop it. But if the excrements of the child are normal, the beer has done the child no harm and the milk is all right, and as far as we know the mother has received no harm. This milk business is a most serious thing. You cannot trust the dairyman, as they feed these same brewery slops to the cows. I have to give the babies artificial food or condensed milk, because I cannot rely upon the cows' milk.

Now, my method, when it becomes necessary to wean a child, is never to use any of these camphor preparations, but use the breast pump to take off the excess, believing that all breasts, with few exceptions, will stop secreting milk after the mouth of the suckling is withdrawn. The breast pump never excites the gland to its full powers; and in this case the reason we used the breast pump was to draw off the excess, and the reason we used fomentations was to stop the inflammation, the result of suppressed secretions. In the case he reported the hemorrhage stopped when the excitement caused by the child's mouth was withdrawn.—*Dr. J. B. G. Custis.*

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MAMMARY ABSCESS.

THERE is no subject that I am more interested in than the question of mammary abscesses. I shall have to take issue with Dr. Grosvenor, who says most of these cases are septic. There is no reason why we should refuse to trust experience, because of this popular idea that every sort of inflammation is the result of sepsis. Many of these cases of mammary abscesses do occur along with abrasions of the nipple, and they occur in other ways. The cases will put their hands in ice water and will have a pain in the breast, and if neglected it will result in an abscess. The septic material does not come through the ice. There is no reason to say that the handling of the ice did not cause it; it certainly immediately preceded it. Every lady who has had trouble of that kind can give you some reason for it, and good reason, so there is no use in saying it is all septic. Dr. Grosvenor has not admitted that he ever had a case. I claim that there are some classes of these cases in which the doctor is not to blame at all, and that the faulty development of the breast is the cause. The breast is not allowed to develop. These women, when they

come to motherhood, will have sub-mammary inflammation that no remedy on earth will absolutely prevent, and I suggest that is one of the cases that Dr. Millsop had. These cases we have no part in, as they are cases of faulty development.

In confinement it has been stated that the cervix is nearly always lacerated to some extent, and I believe it. There is not one of us that will not claim to be able by examination of the cervix to tell when a woman has borne children. These marks are the result of the bearing of children, and nearly all of the women have some lacerations. If you let them alone, the large majority of them will heal, and there will be no reflex symptoms whatever. I do not wish to make remarks here that seem abrupt, but I do believe that this bearing of children is a physical process which was ordered by nature, and, such being the case, I believe much should be left to nature.

I want to give an indication for a remedy for the bearing-down feeling that was spoken of. That is not always caused by laceration of the perineum. There is no remedy so often indicated for that feeling after confinement as *ferum iodatum* 30.

A rest of three or four weeks, I think, we ought to insist on; and there is one little point that I have found appeals to the ladies and makes them willing to stay upstairs, and that is that I tell them I do not think it is right nice to appear on the street after confinement sooner than four weeks, and after that they seem to be willing to stay in their room the four weeks.—*Dr. J. B. G. Custis.*

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IN regard to the care of the breasts to prevent suppuration, Dr. Ordway said he thought binding very good. At the stage of congestion he found that a little local application of belladonna, applied not direct to the breast, but to the glands, is of great service, and glycerine a pretty good medium in which to apply it.

On the question of feeding the parturient woman, for the first twenty-four hours he recommends quite light food, and after that he allows her to eat anything she wants, and to begin to teach the baby what it is going to get through life. While the woman stays in bed she must eat lightly as to quantity, but let her eat almost anything she is used to eating.—*Dr. L. D. Ordway.*

DR. J. C. SANDERS took issue with some of the propositions which had been made. He said: I think that a very frequent traumatic cause is from bruises caused possibly by the little baby's fist or foot. As to Dr. Custis' proposition, he is surely mistaken in that. It is now a conceded fact that we have no such thing as mastitis except through abrasions, erosions, and excoriations of the nipple. That is now a conceded proposition, and therefore Dr. Grosvenor is right that in these cases we never have inflammation of the breast apart from septic influences, and this through abraded, excoriated, creviced nipples. I think that the sooner the proposition becomes more thoroughly known we shall have fewer of these histories of mastitis and abscess of the breast.

What, then, is the relief from this disease? Never permit a baby to nurse a sore nipple. Sometimes the nipple may be tender, but the moment that the mother complains of the tender nipple take your magnifying glass and examine the nipple carefully, and if you find a single abraded point, don't permit the baby to nurse and you will have no mastitis. What is to be done? Until that is healed take the baby from the breast. Feed it artificially, in one way or another, but until that soreness of the nipple is mastered keep the baby away from the breast.

This brings up another matter. I do not believe that we ever have such a thing as mastitis resulting simply from accumulation of milk in the breast. When the breast is hard, this massage of the breast, this rubbing of the breast, is entirely unnecessary. All we have to do is to let that breast alone. Cover it carefully with clean, pure absorbent batting and give it proper support, and put a restriction upon the food of the patient—put her on dry food until we have mastered all topical affections, use the proper indicated remedy bearing upon the healing of this nipple, and as soon as this nipple is healthy and all these abrasions are controlled, then the baby can go upon the breast again. I have another point that I would like to call your attention to, and that is regarding the food of the lying-in woman. It is wise not to carry this diminished amount of the food too far, for we are liable to lose sight of the fact of the blood condition of the mother incident to the completion of her labor. What is this condition? It

is now a conceded fact that the blood state of the mother in the latter months of gestation is a condition closely approaching anæmic, and therefore this lightening of the food should be carefully done, and as soon as the worst of the labor has passed by, then there should be a gradual increase in the nutritious elements of the food furnished.

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I SAY that the mother who has a sore nipple should not permit the baby to nurse. I advise these patients to take care of their breasts and nipples prior to confinement, and it is an extraordinary thing for me to find an inflamed breast if this is done. The treatment I adopt is this: to have the breasts massaged twice a day carefully, without necessarily any medication, without anything except this embrocation. If that is done during the latter months of gestation, why, we will have no such thing as sore nipple, on the ground that this nipple has been accustomed to all the pressure that it has to stand afterward between the jaws of the infant. There is often a stupendous blunder on the part of the nurses and sometimes of the physician in the permission of the nursing of the breast before the milk is in the breast, and the result is that really by the time lactation is established that breast is in a condition of soreness, excoriated, sometimes ulcerated, and sometimes a third of the nipple has been actually nummured off by the little jaw of the infant. Do not let the child be applied to any one nipple oftener than every six hours.—*Dr. J. B. G. Custis.*

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DR. S. J. MILLSOP, in conclusion, said: Those who heard my paper will remember that I said that an eroded nipple was a sure cause of a mammary abscess. I believe that to be the case, and although opposed to what Dr. Sanders has said, I think the cause is not septic, but from the obstruction of the milk in the ducts. The worst case of mastitis I have ever seen was in a typhoid patient who was pregnant. The glands became so large and tender that the patient could not lie on either side. The child was born during the tenth day of the fever. I had been trying to use embrocations and keep the glands from rising. After the child was born it refused to nurse, and the pump would

not answer the purpose, and there seemed to be nothing that we could do. Finally we got two pups and the glands were emptied. We got this thickened matter out of the glands and suppuration did not supervene.

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HIGH ALTITUDE AND ABORTION.

DR. G. TUCKER reported that in two years' practice in a high altitude she had noticed the following conditions: That in primiparæ she had a great many abortions, and in almost all of these abortions was found increased amniotic fluid. Many of the cases will go three, four, and sometimes six and seven months, and the increase of discharge is in accordance with the length of time. Many of the cases show almost arrested development:

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I HAVE had some experience with this excess of the amniotic fluid, and I have found so frequently some deformity, some fault, some abnormality or abnormal condition of the features at birth in connection with this excess of amniotic fluid, that now where there is a birth preceded by this amniotic fluid I know I shall find some abnormal condition, so I think that there is a relationship between an excess of the amniotic fluid and abnormalities of the child, but the philosophy of this I have never yet been able really to comprehend.—*Dr. J. C. Sanders.*

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I HAD just one case similar to that Dr. Grosvenor speaks of, and that was quite enough for me. I was all alone, except the husband, and of course, not being accustomed to anything of that kind, it was quite a mystery to me what I was going to get. There was a large tumor pressing and I could tell it was full of fluid, and that was all I could tell. After a while there was a great discharge of fluid, the same as that described,—I should say several quarts,—and then the child's head came, with the tumor's breaking, which allowed the child to be born. It had a very small head indeed—in fact, there was no top to the head, the lower part of the face only being there, but the body was very large and perfect. I should say that the child weighed twelve pounds.—*Dr. Stewart.*

OF all the number of babies that I have ushered into this world only one has been deformed, and the deformity consisted of a simple harelip. I noticed at the time, and remarked to a young physician who was with me, what an amount of amniotic fluid was being passed.

Now, I propose that all constitute themselves into an observation committee to notice and report these cases, and we will be able by the consensus of our opinions to make a definite answer, and an answer that will be of service in the forming of statistics and conclusions.—*Dr. L. C. McElwee.*

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IN some eight hundred or one thousand confinements I recall three distinct malformations, and each was a case of spina-bifida? In one of the cases the woman thought she was pregnant with twins, and made preparations accordingly. I had not seen the woman at all until the time of confinement, and the very night she was to be confined I had two other cases in labor, but I managed to get around. The case was a bad one, and I finally concluded to have counsel. It was a breech presentation and most difficult to accomplish. My assistant, a very able colleague, felt sure that it could not be accomplished without some greater injury to the child than seemed to be really necessary. The amount of fluid was very great, and was the cause of the great size. The baby was delivered, with a head of extraordinary size, the bones not being articulated and elongated to a great length.

One little complication that annoyed me some years ago was a dislocation of the lower extremity at the knee, the child's limb being doubled exactly forward and over the shoulder. I was very much alarmed, telling the parents that the child would not walk. I found afterward that it was not so harmful an accident as I had supposed. I dressed the limb and the child is all right now.—*A. P. Hanchett.*

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MANAGEMENT OF THE FUNDUS AND DRESSING OF THE UMBILICUS.

A FEW years ago during one winter session I gave instructions not to tie the cord, in order that I might test the practice which had been recommended by some. Most of these cases

I delivered myself. My custom was to watch until the pulsation in the cord had ceased at some little distance from the child, then to cut the cord, and leave it without any ligature. I do not recall now the number of cases we had, but it was quite a number, and out of the number it was found necessary to put on a ligature in some two or three cases on account of the bleeding. The other cases got along nicely. I suppose if we should wait until the pulsation in the cord ceased throughout its length, and were then to sever the cord and not use a ligature, we would have very little trouble ; but, as Professor Sanders says, there is no good objection to the use of the ligature.

You know, a number of years ago in surgical practice it was very strongly recommended that we apply torsion to cut arteries, and leave them without ligation. It is practiced among some few surgeons even to-day, but if you were to observe the work of the best surgeons throughout this country and the world, I believe you would find very few who consider it safe to leave an artery of any considerable size without a ligature. The ligature which is applied to the umbilical cord will do no harm as far as I am able to see. The ligature which is applied to an artery may possibly do a little harm ; I question whether it would be more desirable there than in connection with the umbilical cord. For this reason I still teach my students to tie the umbilical cord. In regard to putting on two ligatures, I may say that it is my practice to put on two. I do not consider the one on the mother's side as of any great consequence, but I have fallen into that practice, and I can see no special objection to putting one upon the maternal side, and I have understood that harm has occasionally resulted from the omission of this. Before tying the ligature upon the fetal side it is well to strip the cord.

I have had some three or four cases where, after applying the ligatures very tightly to the umbilical cord there has been excessive bleeding. It is my practice now after having cut the cord to examine it carefully for a moment to see that the blood does not flow, and then, if the cord happen to be of pretty good size, so that considerable tissue is inclosed within the grasp of the ligature, I ask the nurse to look and see if the cord

is not bleeding. If it bleeds at all, it is likely to bleed within a very few minutes. I also always examine the stem of the cord to see if it is all right.—*Dr. S. Leavitt.*

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I HAVE had my attention drawn to more than one case where babies have bled to death from the non-ligation of the cord. There is no objection to ligating the cord, and the fact that you may lose by the non-ligation of the cord a child, this very possibility should exclude it and make ligation the rule.—*Dr. Sanders.*

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I HAD a fad a few years ago of non-ligation. I had a case where I tried non-ligation, and I had not left the patient long before I got a message to return, and I got there just in time to save my patient.

I must also mention one case that caused me great alarm, where after the cord had come off a hemorrhage started, and it was so severe that I had to take a double suture through and tie it before I could stop the hemorrhage.—*Dr. L. C. Grosvenor.*

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SOME years ago I read somewhere an experience of a physician who did not tie cords, and he claimed that where the cord was not tied and allowed to bleed as it would the babies did not have colic, and I thought that was a very easy method to keep clear of colic, and I have tried it a good many times, but I have always taken the precaution to have a good nurse on hand. I have never had any trouble, but I can say that the babies have had no less colic.

I had an experience once where I tied the cord as I supposed all right, but the grandmother informed me afterward that the baby nearly bled to death, and she tied the cord over again. So that where I used to allow the cord to bleed I invariably tie it now.—*Dr. Mark Edgerton.*

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IF the non-ligation will cause the loss of a single life, everybody had better ligate. Dr. Means says he never ligates the maternal end, and theoretically there is no use of it. I had a case, though, three years ago, and I have been trying to find out ever

since why that cord bled. When I severed the cord, the baby's end did not bleed at all, but it bled from the mother's end, and she would have bled to death if I had not ligated that end.

Dr. Grosvenor refers to a case similar to one I had, but I did not have as good fortune with my case as he did. The cord bled after it had been tied.—*Dr. C. McElwee.*

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THERE is one practitioner who advocates two ligatures, and with very good reason. He confined upon a certain occasion his wife. She was delivered of a fine infant. He tied the umbilical end of the cord. He cared for the child properly and then proceeded to deliver the afterbirth. When he went to take the afterbirth, he took a twin child that had bled to death, the two children having a common cord. This case was reported to me when I made some investigations on this subject some years ago.—*Dr. Geo. B. Peck.*

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DR. SANDERS has said there is no objection to tying the cord. I think there is. In the first place I am convinced that children are better off when the cord is not tied. They do not suffer as much from colic as where the cord is ligated. I have put on but one ligature in fifteen years, and I teach my students not to ligate the cord. I do not believe there is any more danger of a child dying where the cord is not ligated. If you ligate the maternal end of the cord, you stop the flow of the blood; and as to Dr. Peck's case, I never leave the patient under any circumstances. It is the woman first and the baby afterward. I never leave the bed until after the delivery of the placenta. Instead of having a pair of very sharp scissors in my obstetrical case I usually pick up a pair in the house, which are generally more or less dull, and saw the cord off, and we have a rough end and there is no danger.—*Dr. C. H. Cogswell.*

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IMMEDIATE REPAIR OF THE LACERATED PERINEUM.

I AM not prepared to say that there should always be an immediate repair of the lacerated perineum, but I contend that it should not be totally neglected. It must always be done. I happen to know of several deaths resulting from this operation

by performing immediate repair in primipara and in multipara, so that we must make some exceptions. Two of these deaths occurred when the operation was being performed after the patients had suffered from the effects of the shock attending a placenta prævia. Those were cases where profound anæsthesia had been necessary for the birth of the child, and then the anæsthesia was again produced for the repair of the perineum. It has been my experience that this second use of anæsthesia is more likely to be followed by shock, and where the patient is apparently suffering from hemorrhage to any extent, I advise considerable thought before the operation for the repair of the perineum is practiced. So I think it is wise to make these exceptions for the guidance of the student and for his protection as to when, in his judgment, it is safe to perform the operation.—*Dr. J. B. G. Custis.*

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INTRA-UTERINE INJECTION OF GLYCERINE FOR INDUCTION OF PREMATURE LABOR.

THE intra-uterine injection of glycerine is recommended by German authorities for the induction of premature labor. I desire to remark that, from some experience and some observation, this is an expedient that is one of tremendous power of possibility of great harm as well, perhaps, of great good to the woman. I have had occasion to use it myself, but I have been, by my experience, taught to use it very cautiously, for there is hardly anything so quick to produce shock—a shock, too, that is very profound—as this remedy. Then I have from observation discovered this when it was used successfully with every precaution of environment, where after twelve hours from the use, a violent and fatal peritonitis ensued, and the patient was carried away within a period of forty-eight hours. If you have to do with it, deal with it carefully.—*Dr. Sanders.*

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CONSTIPATION OF GESTATION.

AS to Dr. Comstock's paper in reference to the constipation of gestation and the use of drinking water in proper quantities in a large number of those who are subject to constipation, I

think you will find upon observation they are very sparse water drinkers. Patient requires water not only for her lungs or skin or kidneys, but also demands water for the bowel, for, with the average amount of water drank by women in these conditions, after she has supplied the lungs and kidneys and skin, the excrementitious matter must now, from the very nature of things, be dried up. I regard the very generous use of drinking water as essential for the comfort and safety of the gestative woman. If cold water cannot be borne, drink it hot on an empty stomach.—*Dr. Sanders.*

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TIME, ERGOT, AND LACERATIONS.

AS to the *post-partum* time of attendance. What is an hour? What is time, anyway, in a matter so grave? There is a safer rule than time—the condition of your patient. How determine that? By her looks, by her actions, but pre-eminently by the condition of her pulse. No woman is safe to leave, I don't care what time has elapsed, that carries a pulse of 100. That woman, if not already bleeding, will bleed, and I would no more dare to leave her with that pulse than I would in the face of the fact that she was dying with hemorrhage.

As to ergot. I don't know how anyone can favor the exclusion of ergot as a remedy from the therapy of homeopathy. I suppose their remarks are relative to its use as a drug. But we have in ergot, if homeopathically used, one of the most potent of remedies, and it is against the drug action of ergot, I presume, that this arraignment has been made.

As to lacerations, cervical and perineal, and as to their prophylaxis. The great proposition I desire to enforce is this: I believe that the premature breaking of the waters more largely explains lacerations of the cervix than any other proposition possible. There is where the interposition of art is culpable. The doctor is in a hurry; time has gone on for twenty-four or forty-eight hours; the os is not dilated, and the waters not broken. Then the waters are artificially broken, and we have the presentation breech, vertex, forehead, or face. Now, what can be so productive of lacerations of the cervix and its margin as this sudden thrusting of an unyielding body through an unprepared os? The bag of water acts as an equalizer upon that cervical margin; the

pressure it exerts is all around, so that the descending part may bear equally upon all the parts involved in the gentle opening of the womb. The bag of waters is the great conservative protection to the laceration of the cervix. As to prophylaxis of the perineum. The laceration of the perineum may very largely be chargeable to the medical attendant. He is unwilling to give the necessary time. He wants to make himself distinguished as aidful just at this critical period ; but he is unwilling to give the necessary time for dilatation, and the result is—what does he do? When the head, breech, or what not has come down on the perineal surface, and things are getting very critical, what does he do? Instead of checking or restraining her pain and holding back ; instead of taking every means to aid in the gradual dilatation, he encourages her to bear down—"Bear down, woman, you are almost through, bear down!" And the result is she adds a cumulative force, and down comes the head with the greater force and crashes through the perineum. The shoulders also are very troublesome, and the woman is torn from the shoulders resenting and being taken away too violently.—*Dr. Sanders.*

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SOMETHING has been said about the second and third stages of labor, and especially as to the use of ergot. Up to within the last five or six years I frequently used it ; since that time I have had no use for it at all in the stages that I speak of. It seems to me that in governing or equalizing the uterine contractions we can get all the benefits from pulsatilla, sabina, or sepia that are necessary in the case. In the condition of non-dilatability of the cervix I have had better results from gelsemium than from any other remedy.

Regarding the time to wait upon these cases, I don't use anything to precipitate the third stage, but I do use my forceps freely, I presume, in three cases out of five, particularly if there is delay in the advancement of the labor. Now, it oftentimes happens that the parts will impinge upon the bones of the pelvis; you can't do anything with your hands as a rule ; sometimes the patient is too sensitive to permit it ; in such cases I use my forceps. It is rarely that I am in attendance upon a case more than four

hours, oftentimes not two hours, without or with forceps, but without ergot.

Regarding lacerations of the cervix. If the laceration is not complete, if it is only through the internal structures, so that it can be examined with the finger, then I don't attempt to correct it at that time. I don't think it is necessary; neither do I think it necessary, if that laceration is complete, to correct it at the time. I would rather wait until nature has partially mended the laceration by a healing process. There is so much relaxation of the uterine parts that it is almost impossible for me to coapt the parts correctly immediately after delivery. There is generally so much discharge from the uterine cavity that it is difficult matter for me to examine the patient properly. Therefore I allow them to go along for the time being. Not so with the perineum; here I believe in applying the remedy at once. When I recognize a laceration of more than half an inch, I immediately correct it, and if the laceration extends to the margin of the anus or around it, it is a very easy matter to close it at the time and protect it from the lochia—much better than to let weeks and months pass, and then put the patient under a surgical operation, which will confine her to her bed for several weeks more.

In these operations for the repair of the perineum I always try to keep my needle disguised all the way through, beginning at the lower end of the laceration and work upward, that there is no chance for a pocket or cavity to remain in it where the lochia could be contained and set up a sinus or other inflammatory process. In this way I avoid the after operation, and I think I get the gratitude of the patient to a larger extent than I would if it was closed up by a subsequent operation.—*Dr. S. C. Sprague.*

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SUBINVOLUTION OF THE UTERUS.

I BELIEVE we may call the physician blamable in some of these cases at least. It is wise not to interfere with a normal physiological process, but watch and see that it is a physiological process, and instantly interfere when it threatens to be a pathological case. The subinvolution which is so great an annoyance to the woman is due largely to the laceration of the perineum and cervix and endometritis. Any one of these two

cases or both combined with retroversion will constantly interfere with the drainage.

If laceration of the cervix is present, of course it should be repaired. Most of us would be glad to do this later, because we are most of us not sufficiently scientific to do it at the time ; but the perineum should be repaired at the time. I believe we can many times prevent subinvolution of the uterus by being never in too great a hurry to assist nature. Before I leave a patient I say I shall ask to make an examination at least within six weeks after the childbirth, and again at the close of the lactation. If at this time we find a discharge from the uterus, it is abnormal, and by examining carefully we will find a continuous congestion of the os, and perhaps further up on the inside of the uterus. At that time we do not need to delay much, but we certainly should clip it out without delay. By treating it carefully with antiseptic cleanliness we will save a large percentage of these cases of permanent invalidism that we many times see traveling all over the world in search of relief.

One other form of treatment for subinvolution in cases where the uterus continues very much enlarged after the operation is done, where there is great infiltration and retroversion, but no laceration remaining, but a very large abnormal cervix, I believe in many of these cases we can get the best results, almost perfect results, by taking a V-shaped piece out of each side of the uterus immediately near the point of the original laceration, then by coapting the parts reduce the abnormal and redundant tissue, repairing it in that way.—*A. W. Bailey.*

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OBSTETRIC PROCEDURES.

WITH reference to ergot, I think our allopathic brethren are fast getting out of the notion of using it. I have had occasion once or twice within a year or two to consult with allopathic physicians in cases of *post-partum* hemorrhage. They had entirely discarded the use of ergot.

I think if we begin attending a woman in confinement we should attend her. Our time is hers. I don't think any physician has any right to go to the bedside of a parturient woman unless he has got time to stay there and give her all the attention

she requires, and it should be understood between the patient and the doctor that he shall be paid for his time, and then he can give his whole time.

As quick as I am called to a case of confinement I go, and I don't do anything to hurry it, because I think I would be committing a crime if I did hurry it. I am sure I can prevent and do prevent lacerations of the perineum by giving time to the second stage of labor, and I never in primipara allow the head to come over the brim rapidly when it begins to press upon the perineal floor. I believe the shoulder is productive of more lacerations than the head.

Post-partum hemorrhage is produced by hurrying the placenta. We ought not to forget our homeopathic remedies in *post-partum* hemorrhage. We know they will control the hemorrhage. These remedies are ipecac, sabina, belladonna, and other remedies, and I think a great many times one reason that we don't get better results is that we are afraid to use them in their attenuations. One of the worst cases of *post-partum* hemorrhage I ever had I stopped with sabina. I had to hurry that patient because she was so weak and exhausted, and, as the result was a terrible *post-partum* hemorrhage, I called three physicians to help me, and we were all at sea. The womb was like a piece of dough in our hands,—it would not contract,—and in the midst of the trouble, after I had given other remedies, I prepared some sabina 30th, and within three minutes I got the first hard contraction of the uterus. I had tried the lower attenuations without result. I have stopped hemorrhage with ipecac. The indications were simply the flaccid condition of the womb. I have since that got firm contractions from sabina in several other cases.

As to repairing lacerations, I am afraid of results from the continuous suture without the deep wire suture. I am afraid there would result a flabby perineum, even with perfect coapting of the parts.—*Dr. C. A. Gale.*

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I SHOULD like to devote two hours to this subject. Although for the last two years I have withdrawn from the practice of obstetrics, in the thirty years preceding, during which I practiced obstetrics, I had the pleasure of delivering pretty

nearly two thousand babies. I have lost during that time one mother after the birth of a horrible monstrosity. I have never during that time administered a single dose of crude ergot. I have never seen the occasion to do it, and yet during this experience of thirty years my *bête noir* in obstetric practice was and has always been *post-partum* hemorrhage. But I have successfully gotten through with every one that I have had. With regard to the repair of the lacerated perineum, when I was young in practice, I always repaired them; in the later years of my practice I did not. How many of us have ever done what Dr. Leavitt suggests we ought to do—that is, repair the perineum and then watch the result of our repair? I remember on one occasion, when I was a young physician, I had a case of lacerated perineum, and I didn't have the proper instruments, and went back to my office, seeing there a patient or two in the meantime. When I got back, there was no need of an operation. It is like the man who did not answer his letters for a fortnight, and then he found they didn't need answering. If you will let them alone for a while, you will find that a great many of them will not need an operation. I think that any recommendation to repair the cervix immediately after laceration will not meet with the approbation of the majority, and I trust that the matter will be left until a later period.

I would like particularly to emphasize one remark made by my friend Dr. Sanders. Never leave a woman if she has apix pulse of 100 or over, no matter how well everything else appears to be. Don't leave her until the heart's action has quieted down.—*J. S. Mitchell.*

* *

GELSEMIUM is one of the best remedies that we have for a rigid os. It can also do a great deal of harm. The statement has been made by one practitioner that he uses gelsemium in nearly all cases. What is his next statement? He uses instruments in three out of five cases. What is the next statement? That he finds laceration. Those are all sequences, and I want to protest against the too frequent use of gelsemium.—*Dr. Geo. Royal.*

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IN regard to my use of the forceps, I didn't mean to say that I complete delivery with the forceps. I spoke of using them when labor was retarded, and while the contractions were sufficient there was no advance made of the presenting part. In that kind of a case I use the forceps. I put them on and turn the head in position, or perhaps give it a slight start, and then release the forceps. I don't think I have any more percentage of lacerations of the cervix or perineum in using the forceps than those do who let them alone. Now, when your patient is lying in the pangs of

labor, and no advance is made of the head, is it not better to put on your forceps, rotate the head a little, and bring the occiput in position, than it is to let her lie there and let nature take its way?
—*G. C. Sprague.*

I^{* * *} HAVE been in societies where the doctors would say that they never used the forceps, and never had a case of laceration. It is no use to answer them. We only speak of cases that do take place. Lacerations do come. Shall lacerations that come in labor be repaired at once? I said that a majority of the profession have decided that in a majority of the cases the repair ought to be done at once. If you make the primary operation she has only one lying-in; it is much less expensive to her; she will not have other diseases, and not be liable to subinvolution. I say if they can be repaired immediately after labor, they should be. As to the occipito-posterior position, if the head is impacted and cannot be moved, the forceps have been tried, what are you going to do next? If you use force enough to drive that head through the perineum, you will have a laceration from Dan to Beersheba. Episiotomy is the proper thing to do at such a time. The technique of the operation has been well stated by Dr. Leavitt.

If you have been giving anæsthetic during the labor you must give it again to repair that perineum. If you have given no anæsthetic, you can repair that perineum without an anæsthetic. [Here was detailed the case of a woman who was lacerated the second time; attempt to repair without chloroform proved futile; it was found she had already taken chloroform, and so it had to be repeated.]

Success in medicine depends upon attention to minute detail. The curette has been mentioned. Many ladies have a labor or an abortion. If there is not a complete delivery of all the products of conception you will have subinvolution, and she will be an invalid for years afterward. If it is an abortion, how are you going to get rid of the products? Formerly I used to employ the dull curette. That is really useless, but the sharp curette is serviceable.

As to time, you must not leave your woman until the womb is clean and contracted. Curette that woman thoroughly under an anæsthetic to reduce subinvolution, no matter how long it has been in existence; always do it under antiseptic precautions. Then pack that womb with iodoform gauze for twenty-four hours and let it come out. That is the only way you can possibly treat that subinvolution, which has caused your chronic endometritis.
—*T. G. Comstock.*

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A FEW CONSIDERATIONS ON UTERINE FIBROMATA, WITH HISTORY OF ANOMALOUS CASES.

BY

GEORGE CLINTON JEFFERY, M. D.

UTERINE fibromata! What are they? Simply an aggregate of new tissue found within or without the uterine cavity, or perchance within the walls of the uterus itself. Are these growths malignant or benign? One answer fully decides the question, and that is based not upon theory, but upon the ultimate judgment both of personal experience and the revelations of the microscope in the hands of competent and learned pathologists, who have given time and study in their careful researches upon this important subject. All are unanimous upon the one answer as to their benignity, which we accept as final and conclusive; also that they are of a limited active life in their development. This answer definitely decides in my own mind, and has for several years, a belief that measures

are too frequently employed in their treatment that are unscientific, unreasonable, and certainly detrimental to the best interests of our trusting patient. In our hands alone, as surgeons, lies the decision which means more to the patient, her friends, and her family, than can be easily estimated. I do not speak as a moralist, nor would I wish to instill, without positive reasons, any of the conservative ideas which I chance to maintain upon this subject, but I am free to say that measures are, in my judgment, often applied in the treatment of these growths that are followed only by disaster to the patient and the most unsatisfactory results to the surgeon himself. The removal of these growths by a total removal of the uterus is as rational a means of treatment, to my mind, as would be the removal of an entire limb for a necrosis at its extremity, or the removal of the entire foot to relieve the familiar torture of an ingrowing toe nail. The object, as I see it, is not to remove the uterus, which is certainly most inoffensive of itself, but to rid the patient if possible, with safety to herself, of its contents. With me, it must be conceded that very frequently these cases are met in patients who demand relief for reasons of pride alone; in others, because of the recurrence of devastating or exhausting hemorrhage, and in others because of the pressure which the foreign mass, within or without the uterus, is maintaining upon the bladder or the descending bowel. Now, when we know, as has been frequently proven, that these conditions may be relieved by means and measures that fall short of the total extirpation of the uterus, should we not at least avail ourselves of simpler and certainly less hazardous procedures?

Lawson Tait was the first, I believe, to demonstrate what now appears to our minds as a very simple anatomical problem, namely, to cut off from these growths the supply of nutritive blood which is constantly maintained and effectually supplied by the ovarian arteries. To be sure, the uterine artery coming up on each side from below con-

tributes its share of blood, but not in quantity more than sufficient to give nutrition to the walls and body of the uterus after its companion arteries are ligated and excised. What more, may I ask, does the treatment require than to limit the growth of the fibroid mass by reducing its supply of food and nutrition, which, with the assistance of middle life (if our patient chances to be upward of forty years of age) in the natural tendency of that period to atrophic changes. I may say—and again we have the substantial evidences of many reported cases—that with no external interferences whatever such growths, at the menopause, take on the changes of decay, cease their development, and in many instances, especially of submucous fibroids, are expelled from the uterus and become the easy prey of the surgeon's knife as they lie attached to their pedicle within the vagina. What, then, would appear as a rational method in the treatment of these cases? Place unnecessarily, and in jeopardy, the life of the patient in the performance of an illogical operation? Or employ measures more simple, of less danger, and meeting all that the case requires of itself? It may sound more vain-glorious to report the removal of the uterus for the cure of a fibroid within that organ, than it would to simply say that the ovaries and fallopian tubes were removed; but permit me to say that surgeons have a greater duty in life than to extol themselves, especially when attended at the expense of human life. This view, like all subjects, has its modifications. There are uterine fibroids that fill the whole pelvic cavity and even a part of the abdominal also. When these growths are met it is often found impossible to discover the bed in which the ovaries lie owing to the dimensions of the growth, together with the attachments and adhesions, which are frequently a part of them, making all effort to place the ligature about the tube and pedicle of the ovary futile and unsuccessful. What, then, are we to do in such a case, may I ask? One of two things. If

there are no hemorrhages sapping and enervating the patient's strength, let it alone; or, if its weight and size crowd upon and interfere with the proper performance of the excretory functions of the body, remove it by a partial division of the uterus, and bring the stump extra peritoneal, or externally, to the abdominal wall in all cases. Then we are secure against the possibility of internal hemorrhage after we have closed the abdominal wound, and for many other reasons it is the method approved of and employed by our teachers and leaders in this branch of gynecological surgery.

There are a few cases requiring the total extirpation of the uterus, and they lie entirely, in my judgment, within the circle that embraces the malignant diseases of the organ; but often these cases must be handled with as much introspection as those of fibroid. Because a woman has a cancer of the uterus that of itself does not constitute infallibly the indications for complete hysterectomy, but it must depend upon whether or not the adjacent lymphatics have or have not taken into the system the characteristic elements of cancerous disease only to plant the seed to develop in other organs or structures of the body. Upon this additional point of diagnosis lies our intelligent prognosis. There cannot, in my mind, be any glory added to the surgeon's name or to his reputation as a successful operator should he perform his operation on Monday only to have his patient buried on Thursday, with added pain and suffering as a reward for her submission to an operation absolutely unwarranted, which the surgeon should know would offer no chance of permanent success before it was undertaken. Such a patient had better live a few months in comparative comfort than to be hurried to an untimely grave by too much zeal upon the part of the surgeon. In the early stages of all carcinoma, before evidence of glandular involvement are manifest, the entire removal of the uterus is indicated either by the method of supra-pubic

hysterectomy or removal by the vagina, which operation, in many instances, has proved itself to be of lasting benefit, and the successful termination of what must necessarily have left disaster behind it. I believe, therefore, that the removal of the appendages of the uterus, having in view the cutting off of the nutrient supply to the growth within, can be conserved in every case where it has not become too large, by simply ligating the ovarian artery on either side, together with the necessary excision of the ovary and its fallopian tubes. Hemorrhage by this means is always controlled, and I should like to ask in any case what indications point more peremptorily to the intervention of any operation in a case of fibroid growths of the uterus than this? This is a comparatively simple matter, done in a very short period of time, there being but a simple abdominal wound required, and the shock and depression of a long operation, such as hysterectomy, are not entailed, but is entirely avoided. These are my honest views upon a subject that may admit of varied discussion; but I appeal to you that my reasoning is not illogical, and in many instances is, I believe, incapable of being successfully controverted. In the title of this paper I have agreed to give a report of a case, rather anomalous in its recovery, and I trust I shall not weary your patience in the progress of the undertaking.

Mrs. S., forty-three years of age, was introduced to my care in September last, suffering with exhaustive attacks of metrorrhagia, which recurred at periods of every two or three weeks and continued until she was completely prostrated, owing to the severity with which the flow was maintained. Upon examination I found the uterus as large as a child's head, owing to the presence of a large fibroid growth within its cavity. I at once suggested to my patient the advisability of removal of the ovary and fallopian tubes, with a view of controlling the hemorrhage that was constantly menacing her life. Having obtained her consent, in the early part of November last, assisted by

Dr. C. L. Bonnell, at the Memorial Hospital in this city, I performed the operation which I had suggested. The task having been completed, in sewing up the abdominal wound I forgot for a moment to introduce the glass drainage tube which I had in readiness. Without opening up the entire wound again, I removed a stitch and by introducing my finger through the peritoneum and into the abdominal cavity, found that the opening was sufficiently large to admit of the introduction of the tube, which I then placed in position and finished the operation. Not more than five or six minutes had elapsed before the tube was completely filled with bloody serum. This was certainly unusual and called forth some expressions of surprise from all present. The tube was cleansed and in a few minutes was again filled to its brim with similar fluid. Once more it was emptied and the patient was removed to her bed. Within the next twenty-four hours the tube was emptied on an average of once every hour, and for the following ten days, although the secretions gradually decreased in quantity from day to day, the color of the serum changed from that of blood at first until it became to all appearances like that of urine; in fact, I at one time feared that I might have in my blind introduction of the tube punctured the bladder and was eliminating its contents in this unnatural way. Microscopic examination, however, easily negated this assumption. After removing the tube, which had been in two weeks, the wound continued to discharge large quantities of pus, and at one time an abscess ruptured through the opening, saturating the patient's clothing and exciting some little alarm for a time among the attendants. The wound finally healed, having been cleansed by frequent washings, and dressings of peroxide of hydrogen in its full strength. My patient, however, notwithstanding this irregular convalescence, made finally a complete recovery. The hemorrhages have completely ceased; her health has remarkably improved, while the fibroid remains within the

uterus, existing in apparent comfort during its declining days, and in no way embarrassing her comfort or liberties, while in every way her interests have been better conserved than they could possibly have been had I deemed an entire extirpation of the uterus advisable, while every indication of treatment has been met by a simple removal of the uterine appendages.

I have written here frankly upon this subject, but if my views may not meet with unanimous approval, at least give me credit of having expressed my honest convictions upon a most important subject. We all look at the simplest of matters through different media; yet having in view, it may truly be said, but one commendable purpose—which is the alleviation of disease and pain as we meet it, and the conservation by the most comprehensive and logical methods of every object of our professional undertaking.

MULTIPLE PREGNANCY.

BY

GEORGE W. WINTERBURN, M. D.

A RECENT attempt to investigate the subject of multiple pregnancy has resulted in some negative facts which are somewhat surprising. A circular letter was sent out to a large number of our subscribers, and a fair percentage of these have responded. It is remarkable how few have had much experience in multiple pregnancy; less than twenty reported having ever seen a case of triplets; no larger number than three at a birth is reported by any one of them. The number of twin births also is comparatively small. Quite a number of practitioners who have done a fair amount of midwifery in the course of a general family practice extend-

ing over periods ranging from ten to twenty-five years reported only 3 or 4 cases each. One physician who has been in practice for nineteen years reports only having seen 1 case of twins. Another, who has been in practice twenty-three years, reports only 2 cases. Out of more than 20,000 reported births, there are only about 150 cases of twins. This certainly shows that the American woman does not run to multiple births. Increased intellectuality inclines toward sterility, and if the tales which are told of the frequency of multiple pregnancies among the more ancient races are true, that tendency is now rapidly disappearing.

Dr. William E. Leonard reports a somewhat singular case: On April 22, 1882, a woman gave birth to female twins after a pregnancy of 234 days; the first presented by breech, the second by vertex, after a short labor, the second stage of which lasted only an hour. The weight of the children was, respectively, $7\frac{1}{2}$ and $7\frac{1}{4}$ pounds. There was one placenta, with two cords. A week later a small placenta with a short aborted cord came away. The mother's recovery was excellent, and the girls, who are now thirteen years of age, are in good health. They began to menstruate shortly after eleven years of age. Each has the other's illnesses, which fortunately thus far have not been of a serious character. The second child is the more delicate of the two.

Dr. J. C. Nottingham reports having had only one case, which possessed no special interest, excepting that the father begged him to strangle the second child. Dr. J. F. Thompson, Secretary of the Board of Health, Henry County, Indiana, reports only one case of twins out of 734 cases, this case being the 683d delivery. This in a practice of twenty years. There was nothing of special interest about the case itself, the first child being born by vertex presentation, the second by breech, and both are doing well. Dr. William S. Thompson of Augusta, Me., reports only 2 cases during a practice of fifteen years, and with a very large share of obstretrical work. Dr. A. P. MacDon-

ald of Danbury, Conn., as a result of twenty years' experience with 700 cases of confinement has had only 2 twin pregnancies. In one of these the first child was delivered by a midwife, who then worked for two hours to get the afterbirth. She had tied the cord to the mother's leg lest it should slip back into the uterus. Examination revealed a second bag of waters, and after this was ruptured the second child and placenta came away in twenty minutes. Dr. E. C. M. Hall of New Haven, Conn., reports only 1 case of twins out of 200 confinements in the course of eleven years' practice.

Dr. Albert S. Atkinson of Baltimore reports the following case, which occurred during his service as *interne* at the old University Hospital in Philadelphia: The patient was a colored woman who was examined some weeks before her expected confinement and (apparently) two heads were easily made out. Only one heart sound, however, could be distinguished. The woman was gravely told that she could expect twins, an announcement which did not seem to please her at all. For the next three weeks her life was made a burden to her by the medical students, a number of whom went there every day to examine her. Some of these found the second heart sound, others did not. Others again made out any number of extra legs and arms, and all wanted to be on hand at the final hour. One afternoon the call came and they arrived at the patient's house just in time to see a lusty boy make his appearance, soon followed by the placenta. A round, hard body, which was supposed to be the head of the second child, could still be plainly felt through the abdominal walls, but no other parts of the fetus were made out. It suddenly dawned on them that they had to deal with a case of intra-mural or subserous fibroid, well up in the fundus, and about the size of a coconut. The mother was relieved to know that there were no more babies on the way. The case was unusual, perhaps, in that the woman went to full term with such a complica-

tion; still, the growth was well out of the way, and could not have interfered materially with the fetus. The woman made a good recovery, and probably still has her fibroid.

Dr. George T. Moseley of Buffalo reports no triplets and but few twins, the latter very commonplace and "outrageously normal." Dr. Nathaniel W. Emerson of Boston reported that the inquiry regarding multiple pregnancies came at a curiously appropriate time. He says: "I had been out all night in attendance on a case of twins, and on my return the first letter in my mail began, 'I write to inquire if you have had any special experience in multiple pregnancies?' I felt that morning as if I had had experience enough to sink a steamship, although I suppose critics would say my experience was a tame one. I have had only 4 cases of twins, but these have been all quite difficult, the presentations being unfavorable."

Dr. E. Lippincott of Memphis reports only 1 case, with instrumental delivery, followed by puerperal fever in the mother and jaundice in both babies. Dr. E. E. Reininger of Chicago reports that he has had no cases at all. Dr. J. H. Cook of New Carlisle, O., reports the following case of triplets: He was called on February 13, 1891, to attend Mrs. B., who was supposed to be in labor. She was a primipara, twenty-five years of age, tall, and of spare build. She had had almost all the contagious diseases, and stated that she was considered the unlucky one in her family. She had last menstruated on July 4 and 5, 1890. Upon further inquiry he learned that she had been seen by a physician a few days previously for a pain in the back, which prevented her from lying down. Both lower extremities were œdematous, and she suffered from obstinate constipation which both pills and enemas had failed to relieve. Labor pains began about nine o'clock in the morning. An examination showed that the waters were broken and a head presented. At 11.30 A. M. a male child, weighing $3\frac{3}{4}$ pounds, was born. The uterus failing to decrease in size, a digital

examination was again made, which disclosed another bag of waters bulging into the vagina. Upon rupturing this a second child presenting by the breech was made out. It was born ten minutes later and proved to be a girl weighing $3\frac{1}{2}$ pounds. The uterus still remaining large, another vaginal examination was made which disclosed a third sac, and upon rupturing this a third child, presenting by the breech was found. It was born in fifteen minutes, but showed no signs of life. It was a female, and weighed $3\frac{1}{2}$ pounds. The placenta was delivered five minutes later by expression, and was the largest Dr. Cook has ever seen. One cord was implanted in the center of the placenta, and one at either edge. On the evening of the day of her confinement the patient's temperature rose to 103 F.; pulse 84. The discharge of lochia was normal, and next morning her temperature was also normal. There was no albumen in the urine. The children were very feeble and refused to nurse, and on the fifth day the male child died. On the seventh day the remaining child took the nipple for the first time; it, however, remained feeble, and when it was five weeks old it weighed two ounces less than it did at birth. After that it began to pick up, and it is now a hearty-looking child. On the thirteenth day the mother developed phlegmasia alba dolens in the left leg, which kept her in bed for three weeks. Soon after her recovery from this she had an attack of gastralgia, which again prostrated her.

The special points of interest in connection with this case were (1) the date of the last menstruation, which showed either that the children were prematurely born, or that she had menstruated after becoming pregnant. From the feeble condition of the children, and the fact that the only remaining child did not begin to pick up for about six weeks, he concluded that they were seven months' children. (2) The shortness of the labor for a primipara, its duration from beginning to end not exceeding three hours. (3) The elevation of temperature immediately following delivery.

The fact that the third child was still-born Dr. Cook said he attributed to the fact that the placenta became detached before the birth of that child, thus cutting off its circulation. The attack of phlegmasia alba dolens he attributed to exposure. Since the above date the mother has had two abortions, at each of which but a single fetus was found. At present writing the mother is well and the one remaining triplet is in perfect health.

Dr. H. S. Boardman of Montpelier, Vt., reports as a result of seventeen years' practice no cases of multiple pregnancies. Dr. Eugene F. Storke of Denver with thirty years' experience and a large obstetrical practice has had only 2 cases of twins. Dr. Henry E. Spalding of Boston, with twenty-seven years' practice, has had but 2 cases of twins and no triplets. Dr. Ella P. Upham of Asbury Park reports as a result of her experience only 1 case of twins in which there was nothing special excepting that the woman nearly died from hemorrhage and her doctor from fright. Dr. M. E. Douglass of Danville, Va., reports 4 cases of twins in 462 cases of labor. In 2 of these the children were attached by separate placentæ; in one of the other cases the cords were inserted two inches apart, and in the other $2\frac{1}{2}$ inches. Dr. J. L. Coombs of Grass Valley, Cal., reports as a result of forty years' work as a general practitioner that he has had 5 cases of twins, the last being the day before Christmas, 1894. Dr. F. H. Biggar of Cleveland, reports only 2 cases of twins.

INTER-UTERINE CATAPHORESIS.

BYWILLIAM HARVEY KING, M. D., NEW YORK.

THE subject of electrical cataphoresis is so well understood, particularly by members of this society, that it is not necessary for me to make any remarks on the general subject of cataphoresis, but to confine myself strictly to its inter-uterine application.

I have treated corporal and cervical endometritis, and that other form of endometritis known as membranous dysmenorrhea, fibroid tumors, and areolar hyperplasia. I have not, however, prosecuted my experiments far enough in all these cases to speak with positiveness; but with endometritis I have met with such marked success that I feel that I am justified in reporting a case, leaving to the future the developing of its position more accurately in the other diseases.

The first instrument I used to carry the medicinal agent into the cervical canal was a small platinum sound on which a film of cotton was wound. While this has its advantages, it also has its disadvantages. One is it is difficult to introduce a small pledget of this kind, and it is necessary to use one that thoroughly fills the cavity, which makes it still more difficult; and, second, in attempting to introduce it after the cotton is saturated, one will be sure to lose a very large per cent. of the medicament from pressure, and which, lodging in the vagina, will do harm if of a caustic nature. There is, also, a slight danger of removing the sound and leaving the cotton in the cavity. Since this first application I have used various instruments. The one I use at present is constructed of a staff of hard rubber tubing eight inches long, one end of which has a split tip

for connection with the rheophore, and on the other is screwed the hollow tube which serves as a receptacle for a medicament. Through this tube runs a copper wire, and within one-half inch of the end, where a platinum wire is soldered which continues for one inch beyond the end of the shaft, it is thoroughly sealed to prevent the medicine from running up it. To the end of this shaft is attached by a screw a hollow sheath, which is also made of hard rubber and filled with longitudinal slits, or thickly perforated with round holes, for the escape of the medicament. By slightly rotating this instrument during treatment the whole surface of the membrane can be brought into contact with the opening of the sheath. This receptacle sheath is made of three sizes, so that one can be selected that will completely fill the cervix or body of the uterus. In the latter case I use a shaft which is slightly curved, and the receptacle sheath is $1\frac{1}{2}$ inch in length, but otherwise the same. This instrument, if kept clean, will always be ready for use. If it is not kept clean, salts will collect around the thread where the receptacle sheath screws to the shaft, and difficulty will be experienced in screwing it on and off. In such a case thoroughly soaking it in hot water for a few minutes will dissolve the salts, and the screw will be workable, as the threads are in the hard rubber only, and consequently there is no metal to corrode.

In treating a case the first step, after the treatment has been found to be indicated, is to find the largest receptacle sheath that will enter the cavity. If it is found that either the external or internal os is so constricted that it will not admit a sheath of sufficient size to firmly press the walls of the uterine cavity,—and this is generally the case with the internal os in endometritis,—dilatation should be performed, for it is very essential that the sheath should come in close contact with the diseased tissues. It is also essential to have a good opening for drainage. A film of

cotton is wound on the platinum point projecting on the shaft, and the receptacle sheath thrown over it. It is then dipped in the solution, or the cotton may be saturated before it is applied. The electrode is then placed in position, while the negative pole is placed over the abdomen, and a current of from 15 to 25 milliampères for from eight to ten minutes is given. This treatment has been so successful in my hands in obstinate cases of cervical and corporal endometritis that I have thought best to give the results of one case.

Nullipara, cervical endometritis. This case had been treated by various methods, but with slight success. One year previous to my treating her she had had an abscess in her right groin. Otherwise her history was good. She had suffered several years with leucorrhœa—in fact, she did not know how long. On introducing the speculum great ropes of tenacious mucus were seen hanging out of the cervical canal, and which, if you undertook to remove, would string out a foot in length. An erosion covered about one-half of the cervix, and, when the ropy mucus was wiped away, the same eroded condition could be seen extending up the canal. Treatments were begun in January, 1892. Before the treatment the canal was thoroughly wiped out with cotton wound on a small probe, leaving the clean, eroded surface. The application was made twice a week, using the compound tincture of iodine, and with the form of electrode I mentioned as first using—cotton wound on a small sound. Not more than 20 ma. were given. A good regimen or diet had been recommended by a physician who had perseveringly treated her, so there was no necessity for any change in this respect. In all, eighteen treatments were given when I pronounced her cured.

I report this particular case for two reasons: First, it occurred more than two years ago, and the case on last examination, September 10, 1894, remains well: and, second, this case had been treated by all kinds of caustics with only

slight temporary relief, and, furthermore, the application of iodine for upward of four months had been made by one of her previous physicians without any permanent benefit. It is, therefore, evident that the cataphoric action of the current was what produced the desired result. Its curative action is most marked when the glands are the seat of the disease, and less so when the interstitial tissue is principally affected. Now the reason why this case, as well as others I could report if time permitted, was so promptly relieved, while the caustic treatment failed, I think is very simple. Here we have a condition of glands which, in health, secrete a little mucus, which keeps the canal moist, but they have been so changed by the diseased condition that they pour forth immense quantities of thick, ropy mucus. At the best the ordinary caustic treatment, unless it be sufficient to produce immense sloughs, only affects these glands externally, and does not reach their secreting parts.

So thoroughly has this been recognized that one of the greatest living gynecologists of this country has, within the last few years, entirely abandoned the caustic treatment of cervical endometritis, and only recommends the performing of an operation by slitting open the external os, if necessary, scraping the canal as deeply as possible, and cauterizing with nitric acid so as to produce a slough deep enough to discharge the glands by means of the cataphoric action of a medicament.

We, in the first place, set the iodine free, molecule by molecule, each individual effect thereby enhancing its action as a whole, and by their migratory progress, under the influence of the current, they are carried deep into the tissues, and come into direct contact with the secreting surface and glands and all the deeper seated tissues.

Time does not permit me to report any more cases in full, neither has my experience been sufficient to form statistics that would be of value, but I would say that the case I have reported of cervical endometritis represents more the rule

than the exception, and no less brilliant is the success when we consider the more obstinate disease we have to treat in corporal endometritis. I believe it will also prove to be of great service in membranous dysmenorrhea, as well, perhaps, as many other diseases, but which only experience can tell.

ENDOMETRITIS, ITS CLINICAL IMPORTANCE AND TREATMENT BY CURETTING. *

BY

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THAT affection of the uterus known by gynecologists as endometritis seems to have been very much studied and its importance recognized by the profession during the past few years. If we go back three decades to that period when gynecology was made a special study by Dr. Sims, we find that he said the following: "Nothing in uterine disease is more difficult to cure than endometritis." In a recent number of the *American Journal of Obstetrics* a writer of note says: "In disease of the endometrium, all other utero-ovarian diseases originate."

And another authority says in the *Annals of Gynecology*: "I wish to emphasize the fact that endometritis is the most important among the list of diseases peculiar to women." As far back as 1843 J. Hughes Bennett asserted that diseases of women for the most part commenced at the cervix and traveled upward, and from cervicitis came ulcerations, leucorrhœa, displacements, menstrual derangements, and even ovarian diseases. Unfortunately for the patients (as well as for the profession), he recommended the application

* Read before the St. Louis Society of Homeopathic Physicians and Surgeons, November 17, 1894.

of the strongest caustics to the os and cervix for the cure of such ailments. This treatment "run riot" with the old school for many years until arrested by such medical philosophers as Drs. Sims and Emmet about the year 1860. While a pupil in Paris in early life, I have often seen the celebrated Jobert de Lamballe in his rounds at the Hotel Dieu, apply the cautery iron, red hot, to the os and cervix of numerous female patients. At that date Paquelin's cautery was not known, but this cruel treatment was the authorized practice for erosions, lacerations, hyperplasia, and endometritis, and was especially the favorite of this great master. I might remark that Jobert de Lamballe was the attending physician of the Empress Eugenie.

When Dr. Sims came to Paris he was consulted by the Empress, and in consequence of her preference it was stated that Jobert de Lamballe became greatly mortified, and so chagrined against his American rival (who was quite "the rage" in Paris) that he became insane and retired to a retreat in Switzerland, where he died.

When I was a medical student in Germany, the late Professor Scanzoni of Wurtzburg was the greatest authority in that country, both in obstetrics and gynecology. In his work upon diseases of females, in discussing chronic metritis and uterine catarrh, he says: "As for ourselves, we do not remember a single case where we have been able to cure an abundant leucorrhœa of several years standing." Is not such an admission from one who stood so high as a teacher and an authority good evidence of the importance of this affection and its difficulty to manage? Professor Scanzoni has passed away, and we have made great advances in gynecology since he first gave to the world his two books, one upon obstetrics, and the other upon gynecology. The anatomical relations of the womb with its adnexa are such that when its lining membrane is affected, the diseased condition is liable to extend to the tubes, and we now find ourselves confronted by a fallopian salpingitis, and event-

ually pertitonitis. We start out with the belief, and it is rational pathology, that a simple and benign endometritis very soon becomes chronic, developing into a septic endometritis, which is always fraught with dangers to the woman, because the adnexa may be involved.

Young women who, before the advent of puberty, have suffered from leucorrhœa or catarrh of the womb, who are anæmic and have some hereditary weakness, are liable to have their condition aggravated by marriage and childbirth. Modern social life, especially in large cities, with its excitements, excesses, jealousies, struggles, disappointments, and, I may add, sexual immorality, is a great factor in causing uterine troubles. By endometritis we understand an inflammation of the lining membrane of the uterus. Some writers have described a number of varieties of the affection, but for clinical and practical purposes we will confine ourselves to three: First, the simple (inflammatory): Second, infectious: Third, gonorrhœal or specific. One other specific variety may be mentioned, and that is the syphilitic, which is fortunately rare.

In the above classification we include the most simple catarrh, the hyperplastic, granular, hemorrhagic, fungoid, mucous-polypoid, and ulcerative.

Subinvolution of the womb, the sequel of laceration of the cervix and perineum, is usually associated with endometritis.

Many gynecological surgeons a few years back, after repairing a ruptured perineum or lacerated cervix, frequently had the unfortunate experience to have failures, and it is only within the past three years that they have found out the real reason for these failures. Personally, I had a similar experience, and supposed the cause of my non-success was that I did not excise and remove at the seat of the laceration enough of the cicatricial tissue. The books so informed us, but that was not the only reason. The most recent advances in our art have taught us that with

these traumatic lesions there often exists an endometritis, and before we can repair the lacerations with any hope of success we must sterilize the endometrium by *curetting* and washing it out with an antiseptic solution. "The cause of the suffering from the laceration is not the hiatus in the lips of the uterus, nor the much maligned scar-tissue at the apex, but lies in the chronically inflamed uterus. To cure this patient we must first cure the endometritis."—*Massey*. After the curetting is made, we may at once proceed to repair, first, the cervix, and complete the operation by closing the perineum. All these operations may be made at one time so that the patient will have but one "lying-in."

That disease, catarrh of the womb, when it first appears may involve only the cervical portion of the uterus (endocervicitis), which is then easily cured. Unfortunately its first existence is insidious, and in the majority of instances it is not recognized until it has invaded the whole uterine cavity, when it spreads to the adnexa, giving the woman so much discomfort that she will then apply for advice to her medical attendant.

The fallopian tubes are about $4\frac{1}{2}$ inches long, and where they communicate with the uterine cavity the openings will only admit a bristle, but at the ampulla or abdominal extremity the opening is much larger. It is at first difficult to understand how the secretions of the endometrium can regurgitate or be drawn up into the fallopian tubes through an opening that will only admit a bristle; however, we have the most undoubted evidence that such is the case. Abortions play a great rôle in the causation of both acute and chronic endometritis, and, vice versa, when we have endometritis, if salpingitis exists, should the woman become pregnant, she will be very liable to abort.

The profession has long recognized constitutional syphilis as a cause of abortion, and we find that young women who have gonorrheal salpingitis frequently miscarry; and "gonorrheal puerperal fever" is another frequent sequel.

Dr. Byron Robinson says, "abortion and salpingitis are twins," and he also regards the dangers from gonorrhea as more serious to women than syphilis, and Lawson Tait, with his great experience confirms, this opinion.

In case of criminal abortions produced either by abortionists, by the patient herself, or by one of the laity, acute endometritis, sepsis, and even tetanus may follow, and the patient thus succumb. The operation, when resorted to illegitimately, is done secretly and hurriedly, without any proper antiseptic precautions, as the parties realize themselves that they are committing an overt act against the laws of both God and man. If the patient recovers, she will probably suffer for an indefinite period, and get up with subinvolution of the womb, which necessitates a complication of endometritis.

Hemorrhage is liable to set up after an abortion where the secundines have not been cleanly expelled and the contraction of the uterus is incomplete. In such cases, endometritis, septic metritis, and lastly, peritonitis, with all their train of sufferings, frequently terminate the patient's life.

In criminal abortion, statistics place the mortality as above fifty per cent.; but where it is made legitimately by a professional man, with antiseptic precautions, according to the rules of science and art, and with skill, the mortality is not more than *two* per cent.

In cases of abortion with incomplete delivery, where tufts of the placenta or some of the membranes are left behind, also in any puerperal case where an offensive discharge comes from the uterine cavity that makes us suspect that a necrosed condition of the decidua may exist, curetting the the uterine cavity is the proper procedure. I have been called to such puerperal cases in consultations, and after curetting the womb, the patient's temperature, pulse, and respiration immediately fell, a favorable change set in, and recovery was rapid. For peritonitis following abortion curetting is the safest and most effectual means in our

power to give relief. The first thing necessary when we curette the uterus is to have its canal open, so that we can get free and unobstructed drainage. If we are thus prepared, and use antiseptic precautions, *curetting is not attended with any risk to the patient.*

Frequency of Endometritis.—It is a disease that we often met with in city practice, and hence its importance. Country practitioners see it but seldom, but the fast and exciting life in cities, mixed with “ups and downs,” with contentions, struggles, and disappointments, undoubtedly predispose women to its attacks.

Another cause is wedding trips, with the excesses and excitements indulged in during the “honeymoon,” when the young and delicate bride returns home decidedly unwell and quite out of sorts, ignorant of both the cause and the future consequences of her indisposition, and finds herself illy prepared for the duties of real family life. In such cases, owing to a faulty education, she feels diffident in calling upon her old physician and allows her ailments to go on, getting rather worse than better. She probably complains of pains about the uterine region, or in the vagina, has difficulty in urinating, and to supplement all this, finds herself suffering from an abnormal vaginal discharge that soils her clothing, something she never before experienced. These ailments she endures for an indefinite period until she finds herself falling away, greatly dispirited, and more or less exhausted. After thus suffering until she has to give up and go to bed, she resolves to call upon her medical adviser who, when he has heard the statement of her ailments, will perhaps suggest the necessity of making a physical examination, which the young patient at once declines. If her symptoms point to the existence of an endometritis, or if the doctor fears that she has some specific affection, then an examination is absolutely necessary, and no time should be lost before placing her under treatment. The hypothetical case would seem to indicate the possibility

of a gonorrheal infection, and such instances, we are sorry to say, are not at all infrequent, even in first-class practice. It is quite certain that all the members of this society are abreast in the most recent advances in gynecology, as regards the serious nature of gonorrhea when it affects females. You will all call to mind that Noeggerath, twenty-two years ago, first called the attention of the profession to the dangers of gonorrhea in the female sex. His assertions were then not accepted, but time has confirmed the truth of them.

Gonorrhea in women, although at first it may be a vaginitis or a urethritis, is *per se*, a specific affection and prone to spread and effect the whole endometrium, producing gonorrheal endometritis, and from this may follow with amazing rapidity salpingitis and other grave complications. Any woman who has thus been infected will, according to Noeggerath, be liable to be sterile, or if she fortunately bears one child, she will chance not to become pregnant a second time.

“There is abundant evidence that many puerperal women are infected with gonorrhea, and that both the puerperal and specific cause may co-exist in the same individual. The conjunction of specific infection with traumatism of labor has been termed *mixed infections*.”—*Annals of Gynecology*.

From such facts the existence of gonorrheal puerperal fever may be well conceded. Endometritis is usually a disease of married life, but virgins and the unmarried are by no means exempt. Young girls, especially in large cities, are not unfrequently troubled with leucorrhœa, which with them is often only a vulvitis, or vaginitis, but in time it may invade the cervical canal, and end in endocervicitis that easily spreads and effects the endometrium. Suppose a young girl thus affected marries, then her affection is greatly aggravated. Some of the most trying and stubborn cases of endometritis that I have treated were in young married women who were affected with leucorrhœa before

marriage, but they had always regarded their complaint as something not especially material. Several works by physicians of our school have been written upon vaginal discharges, who only give the remedies for the subjective symptoms of leucorrhœa, or catarrh of the uterus. These authors did not inquire whether the disease was a vaginitis, an endometritis, or an endocervicitis, nor did they care to know whether any of the adnexa of the womb were involved. All that we have to say is, that the best experts in gynecology in our school have found the treatment of the diseases in question unsatisfactory and often impossible to cure, unless local treatment was employed, together with the true homeopathic remedies—and to carry out any plan of treatment properly a clear diagnosis must first be made.

We may have abnormal discharges from the vagina as symptomatic of a variety of diseases, such as the following: Subinvolution of the womb, cancer, hemorrhage from large fibroid tumors, extra-uterine fetation, hydatids, endometritis, hyperplasia, salpingitis, pregnancy, retroflexion and retroversion, prolapsus, metritis, miscarriages, laceration of cervix, laceration of perineum, syphilis, etc.

Each of these affections should at first be located, and then only can they be treated rationally.

Treatment of Endometritis.—A few years back, Dr. Emmet of New York advised in addition to symptomatic internal treatment, local applications to be made to the lining membrane of the womb, by means of an *ecouvillon*, or applicator, with its extremity wrapped with cotton, and dipped in the appropriate medical agent. It was then pushed into the uterine canal as high up as possible, with the intention of changing the condition of the mucous membrane of the endometrium, so as in time to effect a cure of the affection. This operation was finished by tamponading the vagina with a boroglyceride solution. Women were thus treated for months, and were required to come to the doctor's office several times a week to have the applications

repeated. A pretty ripe experience taught these women that, notwithstanding all their trouble, a cure did not result. Our profession eventually found that without previous dilatation of the uterine canal, the medical agent upon the cotton applicator failed to reach the endometrium, and the treatment was abandoned.

The next method is electro-therapeutics, after the manner of Apostoli of Paris, and in all candor we can affirm that it does good in certain cases. As endometritis is an infection, it is believed that the microbes are destroyed by the intra-uterine application of the sinusoidal electrical current, which is conducted through a platinum electrode. The constant current seems to produce an alterative action, and if there is an abnormal leucorrhœal flow the discharge is lessened, and where I have employed it, patients have frequently assured me that they were much improved. It is claimed by Apostoli and others that sterile women are sometimes cured of their unfruitfulness by this means. If such a result can be brought about by the electrical current it is something greatly to be desired. We wish to place upon record our belief that electro-therapeutics is an important *adjuvant* in the treatment of endometritis. The faradic current is also to be utilized in some cases as well as the galvanic. In hemorrhagic endometritis the galvanic current (anode), is a most valuable hemostatic. Electricity is expensive, and without other therapeutic measures may fail to cure endometritis, but from our personal experience and from what we have witnessed under instruction of Apostoli at his clinic in Paris, we regard it as a means not only not to be neglected, but to be further studied and investigated.

Local applications to the os and cervix of ichthyol, glycerin and boroglyceride tamponades are of great value as palliatives, but fail to cure without other supplementary treatment, as likewise iodine to the cervix and vaginal vault, which last is recommended by the old school. It has been found that it was necessary to first dilate the uterine

cavity to secure drainage, and pave the way for emptying the contents of the fallopian tubes (when distended with some abnormal deposit) and for the prevention of the further regurgitation of such secretions in that direction. This treatment was found to be absolutely necessary, otherwise either laparotomy or vaginal hysterectomy would be required.

We will, therefore speak again of the curette. The instrument was the invention of Recamier of Paris, and was a sharp curette, but the profession did not use it much until twenty-five years ago. Dr. Sims then recommended it and Dr. Thomas gave it his support, and had a new instrument of his own made, but the latter's instrument was a dull curette, which at this date, except in a few special cases, has been discarded as useless. The sharp curette is the one gynecologists usually employ, and they use it for diagnostic purposes as well as for its therapeutic value. Its diagnostic value is valuable for examining certain growths within the uterus, so as to establish the existence or non-existence of malignant disease, and also to differentiate the latter from fibroid growths. For the hemorrhages and offensive discharges from malignant disease, as a palliative, the curette is certainly useful. In removing any placental remains left behind after miscarriages (or even after ordinary labors), curetting cannot be replaced by any other therapeutic measure, and here the dull curette may be employed. I have seen sepsis after abortions relieved at once by removing, with the curette, the *débris* left within the womb that had caused the infection.

In such cases, after curettage, the temperature usually falls as soon as the cavity has been washed out with a proper antiseptic. For peritonitis after an abortion, I know of no other therapeutic measure than can be relied upon that will give almost immediate relief. For the treatment of subinvolution and endometritis, I know of no other means so effectual to bring about a cure.

Without previous dilatation of the uterine canal, applications to the endometrium, supposing they can reach the cavity, are of doubtful value, and sometimes may do a great harm because the canal is so closed that drainage is prevented.

Leucorrhœa is not a disease, but only one symptom of some disease; usually, however, it is a prominent symptom of endometritis, but it does not invariably occur, for we sometimes have an insidious endometritis without leucorrhœa, a fact that should be borne in mind. The following diseases are apt to be preceded by endometritis: Fibroid tumors with hemorrhages, extra-uterine fetation, hydatids, hyperplasia, salpingitis, hemorrhages from fungoid vegetations, cancer, and others. Lacerations of the cervix and perineum, retroflexion, retroversion, prolapsus, subinvolution, and miscarriages may all or any of them cause endometritis.

Treatment of Chronic Endometritis.—Let me say that even with our great advances in gynecology, the cure of this affection is by no means an easy matter.

Chronic endometritis being an infectious disease (in a word septic), the principle of its treatment should be first, thorough asepsis; second, removal of the diseased germ-laden tissue within the endometrium; third, thorough drainage, and lastly, rest. All intra-uterine manipulations are to be undertaken with extreme caution, and if the patient exhibits much tenderness upon examination by the touch, and there is pain in all directions of the vaginal vault, showing that there exists inflammation of the adnexa, and if we find the uterus fixed and immovable, anchored as it were in the pelvic cavity, then the intra-uterine cavity should be temporarily let alone, and curettage is not to be made. If such symptoms are absent, and she has chronic endometritis without complications, curettage may be undertaken with safety. The patient is ordered a simple diet for two days previous to the operation, and immediately before the

operation an enema of warm water with a little glycerine is to be given, so as to clear out the bowels. The bladder should also be emptied, and then she is placed in the dorsal position upon a Kelly pad, and an anæsthetic administered. The vagina is to be disinfected with hot water and soap*, and in hospital practice, it is usual to first shave the parts around the vulva, and this we always prefer, if practicable. Then from an irrigator the vagina is to be thoroughly douched with a solution either of creoline, two per cent.; lysol, $1\frac{1}{2}$ per cent., boric acid, chloro-phenique, or, as we prefer, sublimate, 1-5000.

Next we introduce Sims' speculum, retract the perineum, and, with a double tenaculum or volsellum, the anterior lip of the cervix is seized and drawn downward and forward as far as desired. The object being to straighten the canal. Give the volsellum in charge to an assistant holding it in his right hand, and who is directed to press a little with his left hand over the fundus of the uterus and keep it down in position immovable. Introduce now either Nott's or Goodell's dilator and expand it within the cervix for at least three-quarters of an inch. Change the position of the instrument and carefully dilate all around the circumference of the cervix, and allow it to remain in about one minute. Some operators dilate the canal with a succession of graduated sounds, but from no little experience we greatly prefer the steel instrument, which does not produce as much traumatism as the sounds. After the cervix has been sufficiently dilated withdraw the dilator, and introduce Rheinstædter's tunneled douche-curette, which is connected with the irrigator that contains a hot antiseptic solution (sublimate), and curette thoroughly the entire endometrium. While you are curetting, the irrigation is going on, and all the granulations, flakes of membrane, and *débris* that you scrape off, are washed away. When the

* We always have in our gynecological bag either Lee's or Johnson's antiseptic soap.

whole surface of the endometrium is well curetted, you have completed the first part of the operation, and now comes the drainage. The curette having been removed the uterus is still held drawn down, and the cavity, if I may be allowed to use the word, is *dried out* with sterilized candle-wicking antiseptically prepared. The candle-wicking is prepared by immersing it for some hours in a solution of sublimate, when it is taken out and boiled in pure water for one hour. It is then dried, and thus sterilized it is kept for use in a wide-mouthed glass jar. With the dressing forceps take up from twelve to twenty inches of the candle-wicking, and push it up into the uterine cavity until it is completely packed. Leave this packing in the uterus for at least three minutes, then withdraw it, when it may come away saturated with a bloody secretion. If such is the case introduce a new strip of the same, and leave it there for a minute or two and then withdraw it, when the uterine cavity will be well cleaned. If much *débris* was washed away during the curettage, indicating a severe form of endometritis, it will be well to finish the operation by applying the following solution: Hydrate of chloral and phenic acid each, one dram, iodine in crystals, half a dram, mix. A cotton-wrapped applicator is to be dipped in this mixture and the whole endometrium quickly swabbed with it. Quite recently it has been our custom to complete the operation by packing well the uterine cavity with a single long strip of iodoform gauze. This may be pushed in with the uterine dressing forceps, and packed tightly up to the fundus, leaving the end of the gauze projecting from the cervical canal. Another light dressing of the gauze is to be applied to the vagina. The gauze-packing after two or three days may be removed. It has seemed to us that this supplementary procedure adds to the certainty of the cure, and where it is done, the curettage will not be required to be repeated. The tenaculum and speculum may now be removed, and the uterus which has been drawn down and

is now out of place, should be *replaced* by being carefully pushed up into position. When the applicator, armed with the above solution, is introduced to the fundus, the uterus frequently begins to contract, and so rapidly that sometimes it will seem as if the cotton swab would be held within the endometrium and slide off from the applicator. This powerful contraction of the uterus excited by the medicinal application spread over the whole endometrium is favorable, and helps at once to induce a new action and bring about normal involution. Another good result follows curettage. In a good percentage of endometritis, we may have more or less of flexion, usually retroflexion, and by curettage and contraction following, the uterus is restored to its normal position, rapid involution excited, and the womb so straightened when the operation is completed that all vestige of retroflexion is gone. I have verified this experience many times, and this change quickly following curettage is one of the best recommendations for the operation. Not unfrequently curettage requires to be repeated. In one instance where a chronic catarrh of the womb had affected a young woman from childhood, it was greatly aggravated after her marriage, and she was treated for it for two years by electricity, tamponades of boroglyceride, ichthyol, and the indicated homeopathic remedies, but without relief. She finally submitted to having the womb curetted, and the operation had to be repeated some four times within a year before the disease yielded. She was finally cured.

AFTER TREATMENT.

As strange as it seems, this operation is not usually followed by very much pain, but exceptions occur, and then we are necessitated to give a hypodermic of one-quarter of a grain of morphine. Sometimes it is necessary to draw the water once or twice after the operation, and if vesical paralysis continues, give belladonna, infusion of *triticum repens*, *scoparius*, *buchu*, or *nux vomica* in tritura-

tion, 3x. After each urination, or drawing off the water with the catheter, it is best to irrigate the meatus and vagina with one of the antiseptic solutions already mentioned, and likewise for the first four days, after a movement of the bowels, the anus should be thus irrigated.

Rest in bed is absolutely required after the operation, and the patient should not sit up much before the fifth to the seventh day.

DANGERS OF THE OPERATION.

Curettage should be done carefully, and the canal sufficiently dilated so that the curette can be easily introduced. The whole surface of the endometrium should be scraped or else the operation will be a failure. When we first began this treatment, we made the mistake of not curetting thoroughly enough the whole endometrium. The uterus indeed has been perforated, and cases are cited where this accident has happened, but kind nature promptly repaired the unfortunate mutilation. Perforation is a danger that can be avoided by proper care and precaution, but if the uterus is held in position, immovable, by a skillful assistant, it may be curetted by the operator without any danger of perforating its walls. Antiseptic methods have fortunately rendered such accidents less dangerous than formerly. The old school recommend for endometritis intra-uterine injections of chloride of zinc. From our experience and verified by others, I wish to warn you specially from ever using this salt of zinc, as it is far more dangerous than the operation of curetting, and should never be introduced into the uterine cavity.

Puerperal endometritis or puerperal fever, which is *septic endometritis*, from germs known as pyogenic, septogenic, and sapræmic (blood poisoning), may be relieved by curetting. The indications are a septic condition of the endometrium (putrefaction), announced by accompanying fever, with a temperature 104-106, faulty involution, and fetid lochia. The curetting should be done early, as soon as the

pulse and temperature mount up and the lochia is offensive. If the infection is general, and septicæmia is diffused through the system, showing a case of profound blood-poisoning, and already collapse threatens, curetting is then useless. This is the treatment adopted in the obstetrical clinic of Vienna. They, however, irrigate the external genitals and vagina with thymol solution (one to two per cent.) and then curette.

For endometritis menorrhagica interstitialis, fungosa, et climacterica, it is our only resort.

For that distressing affection of young women, dysmenorrhea with stenosis of the cervix, we know of no treatment that will cure it, except forcible dilatation and swabbing of the endometrium with the preparation of phenol, chloral, and iodine. In some cases of obstructive and membranous dysmenorrhea, dilatation and curettage may be required, and this supplemented by packing well the uterus with iodoform gauze. This operation is the only treatment that is certain to cure this painful affection.

1. It is now conceded that the greater number of pelvic diseases affecting women commence with endometritis.

2. Flexions of the womb are aggravated by endometritis.

3. With lacerations of the cervix and perineum, we frequently find subinvolution with endometritis, and here the uterus should be curetted before repairing the lacerations.

4. For septic puerperal fever, and for incomplete abortions where peritonitis threatens, curettage is indicated. In abortions if tufts of the placenta remain, it is recommended to try and dislodge them with the dull curette.

5. Lastly, we insist that curetting the uterus with antiseptic precautions is a safe and rational procedure, and should not be delayed when proper indications require it.

[NOTE.—In recommending this surgical procedure we do not wish to be understood as insisting that it should be employed in all cases. Many cases may be cured by the appropriate homeopathic remedy, without any surgical aid. It is only in cases where the internal treatment fails that we advise a resort to curettage.]

A SYMPOSIUM UPON THE HOMEOPATHIC
TREATMENT OF CHILDBIRTH.

BY

PROMINENT OBSTETRICIANS.

DURING the first fifteen years of my practice I did an extensive obstetric business; during the last twelve years I rarely attended a case of labor. Hence I may have to admit that I am naturally behind the times in obstetrics. Again, the sum total of my work in obstetrics leads me to distrust a great deal of what is now fashionable, and in spite of my readiness always to admit the propriety of using all means possible for the relief of pain and suffering, I fear that in obstetrics, from a modern standpoint, I would appear in the rôle of an old fogey. And all this because, with a practice often and for a long time averaging three births a week, luck has been with me, and the "indicated remedy" and PATIENCE have answered their purpose in almost every emergency. I have never but once been obliged to use the forceps; never lost a mother during or after labor, and have had two cases of "stillbirth." A very uneventful history!

If engaged in advance, I watch the mother, and usually find something that needs attention. Pulsatilla, more often than any other remedy, has been indicated. After some years of observation I got into the habit of prescribing it always for a few weeks before the expected confinement, since the patients who had taken it seemed to get on better than others. Its general action upon the female generative system leads me to think it possible that to a certain extent Dr. Jackson's claims might not be *quite* unfounded. The most frequent abnormal condition I find is tedious labor, especially among the better classes and the young. It was in those cases that my method of patiently waiting, and of using nature's forceps, the fingers of the accoucheur,

gave me most satisfaction. While in those earlier days, as you know, we were less careful than now in looking for minor lacerations, the history of my patients is such as to prove the claim that extensive lacerations are much less frequent under a policy of non-interference and patience than under the ready use of forceps for the purpose of shortening labor.

Here, too, pulsatilla did me good service, and caulo-phylum soon proved valuable as a uterine stimulant.

Throughout pregnancy I have avoided meat diet, and toward the last month especially so. If hungry for meat, I have raised no objections; otherwise I have advised use of oatmeal, fruit, etc.

To me, the chief advantage of fruit lies in its keeping the bowels in good condition; on general principles I believe in fruit-eating. The claim made that an extensive fruit diet tends, by its effect upon the structures of the fetus, to make labor easier, is not without foundation in fact.

Gelsemium tincture has proved very useful, and the most commonly reliable remedy in promoting dilation. Its action is semi-physiological. At a recent session of the Southern California Homeopathic Medical Society this question was discussed, and I was pleased to hear Dr. Owens, an old and experienced man, and a high-dilutionist, insist upon the use of gels. *low* in such cases. If much active congestion, and almost spasmodic rigidity of fiber, with heat, etc., I have used belladonna successfully.

An ointment containing gelsem., or one medicated with bell., used freely, seemed to be of benefit.

After some years' of practice I learned to use chloroform on the handkerchief whenever the patient became very restless, weary, and discouraged in the latter part of labor. It acted so nicely, chiefly in the way of "comforting" the patient, that I would readily resume this habit, did accident bring me to a case of tedious labor. In fact, like an old granny, I believe that the thousand and one little ways in

which the attendant can express sympathy and anxious readiness to help, with an air that is in itself an assurance that he knows what he is about, and of a happy termination, are of more direct benefit to the lying-in woman than the most elaborate outfit in the hands of a non-sympathetic physician.

In afterpains I have had the best results from *caulophyllum* 2x, *belladonna* 3x, *pulsatilla* 12th, and in proper cases from *ignatia*.

Camphor ointment has for years, in old-time obstetric practice in Germany, been famous as efficient in the treatment of the breast when the child died. I have seen excellent results from it.

H. R. ARNDT, M. D.

FOR many years, it has been my invariable practice to inquire into the mental and physical condition of every woman whom I was engaged to attend in confinement. Among my own families it was well understood that assistance could be procured, by well selected remedies, almost from the beginning of pregnancy. I have no doubt the confidence inspired by the assurance that the remedies would prevent complications has helped many a young mother to go through the anxious nine months much more hopefully, and given her courage to endure her confinement.

I believe it has been well demonstrated that many of the ills of dystochia are due to mental causes. Why, then, should we not use every means in our power to place and keep the mind in the most hopeful condition possible? There are well-authenticated cases where, under the exalted mental state, called Christian Science, or mind cure, women have gone through confinement without being conscious of pain.

In my experience there are very few normal pregnancies; in fact it would be difficult to describe a normal pregnancy. The conditions vary as women differ each from every other.

No two are alike, mentally or physically. What might be called normal in one would be abnormal in another. Age, temperament, inheritance, and environment each has its influence upon the expectant mother, and tends to mold the unborn babe for good or evil: to enable it to bring hope and happiness and trustfulness to its parents, or to blast their fondest hopes. Often we see peculiar traits of character pass over one generation entirely, and show in the succeeding generation in an aggravated form.

• This we remark in the cases of criminals more than others, probably because such cases are made conspicuous by crime.

Why, then, should we not study all cases placed under our professional care, and meet the possible complications with remedies which we have learned by experience are reliable under just such conditions?

I think the complications most frequently met in the early months of pregnancy are caused by displacements of the uterus. These are present in both primipara and multipara. If the pregnant uterus is retroverted, the gradual enlargement causes increased pressure upon the rectum and the other organs near it, and congestion and pain supervene. If the well-selected remedy will cause the displaced uterus to become normal that is the best thing to do, but it failed me so many times in my early practice that I determined to find a better way.

If there is an abnormal condition caused by mechanical means, why not use common sense and, by judicious manipulation, reduce the displacement, so that the uterus can rise out of the pelvis and go on to full term? In reducing such displacements I seldom use instruments of any kind. Placing the patient in the dorsal position I make a diagnosis by digital examination. I can better determine the full extent of these displacements by having the patient in the dorsal position. I then place her in the Simms position and, if necessary, put one finger or a ball elevator in

the rectum, and place the forefinger of the other hand in front of the cervix, and by gentle pressure bring the uterus into its normal situation. Many cases of excessive vomiting I have cured by restoring a retroverted uterus to the normal position. If there are adhesions, or if it is difficult to move the uterus I place the patient in the knee-elbow position and use similar manipulation. This may have to be repeated frequently, until the increasing size of the uterus enables it to remain high up in the pelvis.

I have no inflexible rule as to diet. Each patient is a law unto herself in this respect. I recommend a non-stimulating diet, foods that digest slowly and do not make urgent call upon the nervous system for an extra supply of motive power. I have tried the fruit diet quite extensively. The time for the use of fruit, in such cases, is in the morning. Some ripe fruit taken before the patient raises her head from the pillow, in the morning, will often change the whole order of the day. I must condemn the practice of depending upon fruit at any stage of pregnancy to nourish the patient. Some of the most tedious labors I ever attended were those of patients, who, without my advice, had confined themselves to a fruit diet, hoping for an easy labor. I have found but two remedies having any perceptible influence in promoting dilatation. These are belladonna and gelsemium. Belladonna I use internally and if necessary, the tincture applied locally to the os uteri. The indications are entirely different. Belladonna is indicated when the cervix is rigid, not having relaxed at all. The indications for gelsemium are that the patient is nervous and tired and feels she has not strength enough to go through with the labor. The os and cervix are not rigid. When pains occur and the presenting part presses upon the internal os, the patient shrinks from the pain and the uterus may suddenly contract the *wrong way*, raising the fetus still higher in the uterus. I use in these cases gelsemium tincture, and repeat as often as seems best. I never use this remedy locally.

"What mechanical means do I use to aid dilatation?"

"What local applications?"

These two questions I will answer together. My ideal dilator would be one made of rubber and capable of extensive dilatation. This could be introduced through the cervix and then gradually filled with warm water until the dilatation was sufficient to admit the passage of the fetal head. Every physician has at his command means which I have used oftener than any other for the purpose of overcoming the rigidity of the os, viz., the fingers. Introduce the first and middle fingers into the os as soon as possible and by gentle stretching, at the times the pains come on, safe and perfect dilatation can be obtained.

I use no vaginal injections during pregnancy, unless there are abnormal discharges. The injections then will depend upon the causes of the discharge. Hot injections of calendula or hydrastis are most frequently called for. Occasionally witch hazel may be used for the same purpose, when there is congestion and tendency to hemorrhage.

I never promise to give a patient an anæsthetic. I do promise to administer it whenever it seems best. Probably fifty or sixty per cent. of my cases are given chloroform enough to cause a partial relief from pain during the second stage of labor. It is only in exceptional cases that I would give an anæsthetic in the first stage of labor, and those are cases of a rigid os and cervix. About five per cent. of my cases have some irregularity or weakness of the heart, so that I give ether instead of chloroform. I prefer chloroform in most cases, as the odor is less offensive, it acts much more speedily, and the patient is less liable to have an irritable respiratory tract after its use. In some cases ether has left the patient with a dry, irritable mucous membrane, and a cough that would cause pain and more or less hemorrhage.

In all "manual extraction" I wait until the os and cervix are dilatable. I use the measures before mentioned to

dilate a rigid os. Perfect cleanliness is the only necessary preparation. It is advisable to use some disinfectant, because if we did not and septic disease followed, we would not be held blameless, although perfect cleanliness is all that is required. This is also true in the use of forceps. Both hands and instruments *must be* clean. I use Hodge's long forceps in preference to any others. Comstock's and Bedford's are convenient, but not the best under all circumstances.

In later years I use the forceps in about one-third of my cases, but would *not* advise the young practitioner to use the forceps in any such per cent. of cases. Let nature do her work so long as it is *good* nature. Any material departure from the normal would be sufficient indication for the use of the anæsthetic and the forceps. As a rule, I prefer to have the patient in the dorsal position during the second stage of labor. If there is any reason why she should not lie on her back I let her know it and place her on her side.

We do not, necessarily, use anæsthetics because we expect to use instruments. If used properly the woman can be delivered with forceps with less pain than in some so-called painless deliveries.

It is my rule to give arnica 3x, a dose every hour, and oftener if necessary, to control afterpains. Unless there are specific indications for other remedies, this is the only remedy I give, and there are but few cases where it will not control the afterpains.

If the child is stillborn or dies soon after birth, to prevent secretion of milk, I use locally, strong tincture of arnica or phytolacca or camphor. I use olive oil as a vehicle for these remedies.

I know of nothing that will "resolve cake-breast" equal to electricity, followed by gentle massage and rubbing. Always rub from the nipple back toward the axilla.

There may be nothing new in the practice herein written. It is a brief synopsis of my every-day work, and I know it

all to be practical and reliable. It is not, however, *all* I would do in severe or protracted cases. An obstetrician should be fertile in resources and prepared for all emergencies and show that he is something more than a midwife.

CHESTER G. HIGBEE, M. D.

IF conditions are normal in expected confinement I prescribe nothing. If former confinements have been as a rule tedious I prescribe *cimicifuga* and *silicea*. If hemorrhage, *secale*. If the dilation is obstinate, *bell.* and *atropia*. The above are the only variations from normal conditions I have met with. Have been singularly fortunate in this respect during a practice of twenty-three years' duration: never had a case of puerperal fever, never lost but one child. Have attended five hundred confinements. To promote dilation of rigid os I give *bell.* and *atropia* to soften rigidity of circular fiber. Diet to be such as will digest easily and afford the most nutriment—a moderate amount of fruit, not too acid, to promote a peristalsis of the bowels. I have never used any mechanical measures. Injections of hot water and whisky in nearly equal parts. I have never used anæsthetics. No forceps. I deprecate any interference. I have had one case of *ante-partum* hemorrhage, which was controlled with tampon. For afterpains the indicated remedy, such as *coc.*, *rhus.*, *colcynth.* *hyos.* In case of loss of child treated breasts as if no loss had occurred, and gave remedies to discourage secretion. Have never had but one case of cake breast, which was controlled with *graph.* internally and locally applied. Have never lanced a breast; if an outlet is provided breast will not cake. I have learned from experience to deliver the placenta as soon as I can hand the child over to the nurse. I have also learned to excite by manipulation an early contraction of the uterus; at this period I prefer a moderate amount of pain. When I can feel through the integument the uterus assuming a globular

form and contracting rapidly to normal size I feel satisfied with results to this point in the transaction. I was taught that after the delivery of the parturient the bandage was a necessary adjunct, but I have, I feel satisfied, learned better and hence eschew the bandage altogether. I am not conscious of ever having a parturient rupture the perineum or a lacerate the cervix. I am not the possessor of obstetrical forceps; the necessity for their use is so rare that I never procured any. I once was called to attend a primipara and it was the most tedious case I ever had. A marked feature of the case was the weakness of the contractions, which finally ceased altogether, and the patient slept for a period of three hours, much to the surprise of the two or three ladies present, who predicted dire results; on awakening the pains resumed, and under a few drops of ergot came to a successful and happy termination. At a subsequent confinement she had an old-school smart Aleck who used forceps, which resulted in a lacerated cervix. I am of the opinion that Nature is the best midwife extant, and we do well to study her methods and follow them. Forceps are barbarous and unnatural, and the use of them is no evidence of superior attainments. One may handle them with great skill and be grossly ignorant of the physiology and anatomy of the sexual organs. I place much greater confidence in nature than I do in my skill, and to that I attribute my being so very fortunate in my obstetrical work.

J. B. WESTCOTT, M. D.

IF engaged in advance of expected birth, I do not prescribe if condition is normal. A careful watch is kept over the patient to see that the kidney secretions are normal, and that the bowels are free and regular in their action. She must also sleep well. Obstinate constipation is more frequently met than any other abnormal condition. This is treated by a change of diet, plenty of exercise in

the open air, walking preferred to riding, and friction over the abdomen. A cup of hot water before meals. I also recommend a simple but nourishing diet, consisting of lean beef, mutton, or fowl at least once a day ; the cereals, bread made of the entire wheat flour, fresh vegetables, salads, milk, and fruit. Pastry and sweets are prohibited, and tea and coffee are used sparingly, if at all.

Fruit aids digestion, and helps to keep the bowels in a normal condition. Should the patient complain of a sense of fullness after eating fruit, a few doses of china will correct it.

Aconite is used to promote dilation, if the patient is despondent and fears death.

Belladonna: the parts are hot and sensitive, with throbbing of the carotids. It assists in dilation promptly.

Gelsemium is indicated when the pains are inefficient and seem to shoot backward and upward.

Caulophyllum strengthens weak pains. No mechanical means have been required in my practice.

Belladonna-petro. cerate is used applied on a cotton tampon.

Injectons of hot soft water are freely used if needed.

Anæsthesia is employed in every case of parturition, if the patient will consent to its use. No bad result has ever followed. I prefer chloroform to ether or the A. C. E. mixture, and always use it now. In manual extraction, the hand is not introduced till perfect dilation has been secured. The hand is thoroughly cleansed with soap and hot water, the nail brush being vigorously used, then the outer surface is anointed with vaseline, medicated with either carbolic acid or calendula. Forceps are used when necessary. If the patient is making good progress I do not use them. They have been used in seven per cent. of my cases, but more frequently in my early practice than now. Sanders' forceps with long handles are the only ones I ever use. Delivery by natural force is preferred, the vertex leading.

Arnica is always given unless some other remedy is better indicated. If necessary this is followed by belladonna, gelsemium, caulophyllum, or coffea, according to indications. In case the child is lost, I try to establish the milk and keep it at least for six weeks to favor involution. If a babe cannot be secured to take the milk, a good breast pump is used. When it is desirable to dry up the milk, the breasts are emptied less frequently and less completely. After emptying cover with warm cotton batting and support with a bandage, making firm pressure. When the breast is caked, warm vaseline is freely used to anoint the surface, and during nursing or drawing of the milk the breast is *gently* stroked—no pressure being made—from the periphery to the nipple. Bryonia is given internally. Should the breast seem inflamed, with red streaks radiating from the nipple, belladonna is indicated. If taken in time bryonia will resolve cake-breast.

But one case of mastitis has occurred in my practice.

One case came to me from Philadelphia in which the babe was three months old. I lanced the breast, and it seemed to be filled with pus channels; pressure on any part of it would cause the pus to gush out of the incision. It was a cold abscess. Very little pain had been experienced and no fever. A lump as large as a black-walnut was found under the arm. Phosphorus was indicated and cured the case, removing also the lump in the axilla.

JULIA CHAPIN JUMP, M. D.

[F engaged in advance of expected birth I give actea 2x or 3x for two or three weeks before confinement, even if there be nothing abnormal. I kept a record of 250 cases for the express purpose of noting the difference between labors where medicine had been used and where they had not. I paid especial attention to duration of labor and severity; although somewhat disappointed, still there was

a marked difference in both time and severity. The difference in time being more marked than that of severity.

As consulting physician to a large maternity hospital, I must put down as variations from normal most frequently met: "Contracted or narrow pelvis due to the youth of the patient." I use the forceps in all such cases. The hot water or steam bath is also used. I find that the free use of lard or vaseline (I prefer lard) very helpful. I use it during the first stages, and very freely during the second. Lard not only lubricates, but is cooling to the parts. As regards diet, I am sure there is advantage from a fruit diet, but not as much as some would lead us to believe. When os is rigid I believe that chloroform is the best agent we have to produce relaxation. The next best is gels., but in my hands gels., to produce the same amount of relaxation as chloroform, will retard labor much longer. I sometimes use bell. and cham. in such cases. Nux vom. needs much more frequent administration than our college teaching in such cases would lead us to suppose. The finger introduced into the cervix, and gently, but firmly carried around over the muscles, will often assist in dilating the os.

I never used any mechanical means but the above in cases at full term.

In all cases where I can get the consent of the husband and patient, I use an anæsthetic; about eighty-five per cent. of all my cases.

I never use anything but chloroform, because it is more reliable, produces less nausea, there is less liability to bad after effects in case some kidney lesion has been overlooked, and is more efficient in rigid os or perineum.

I do not use the hand except to correct malpositions or to turn. In such cases the circumstances in each case will decide the time of waiting. As these conditions arise after the hands have been prepared by a good thorough washing in hot water, all there remains to be done is to oil them, and for this I prefer lard.

In about twenty-five per cent. I use forceps, but this proportion is made large by the fact that I am often called in consultation. I should say fifteen per cent. of my own cases. I use Burdock's; never any other if I can have my own. Anyone can use his own better than others, and I became familiar with Burdock's and have stuck to them.

For afterpains I use nux v. 1, bell. 2, coffea 3, cham. 4; actea or caul., I sometimes use in case they have not been used prior to or during labor. Once in a while secale has served me well. If the child is lost I apply camphor to the breasts and give bryonia internally. Use the pump if the breast is full.

Bryonia is the first remedy for caked breast. Second place I give phytolacca. Keep the breast empty of milk by drawing out at regular intervals. I never had but one case of suppuration of the breast, in my twelve years' practice, in patients which I attended. Have had to care for some following the employment of a midwife.

GEO. ROYAL, M. D.

THE NON-SURGICAL TREATMENT OF APPENDICITIS.*

BY

NATHAN R. MORSE, A. M., M. D.

IT would seem that the above theme was a subject worthy of our special attention for a brief time, as its frequency is not an uncommon event and has become quite a *fad*, especially with our old-school surgical friends, who maintain and put forth the claim that its treatment should invariably be surgical and operative.

If such be the frozen truth, I fear that the great Creator

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who made man; we are informed, in his own image, made a great blunder and committed a serious mistake when he gave to his creation an appendix to the cæcum, especially if in all cases it must be removed by a surgical operation—no matter how mild the cases.

In a somewhat extended practice covering a period of more than thirty years, I have successfully treated many cases of appendicitis, most of them quite possibly under the head of typhlitis or perityphlitis, as the diagnosis is often doubtful in such cases, but the management and treatment under homeopathic medication is nearly, if not identically, the same.

I belong, however, to that school of the homeopathic profession who have faith in the well-selected "similimum," but at the same time I most positively believe in the use of adjuvants in many cases of disease, and especially so in the management and successful treatment of a case of appendicitis.

I do not now recall a fatal case in my practice of the above disease, although I have had quite a large number, ranging in age from eighteen to eighty years.

In all cases I have been accustomed for the past twenty-five years to the employment of both hot and cold water as adjuvants, externally, and in injections.

If a high fever be present at the outset and a general peritonitis prevails, when first called, I apply cold compresses to the bowels, well covered with dry flannels, and have them frequently changed. If relief does not promptly follow the above application, together with the administration of the well-indicated remedy internally, such as aconite, belladonna, arsenicum, lachesis, mercurius, nux, or rhus, I then dispense with the cold applications, and employ hot, using the hot or sitz bath as warm as can well be borne, lavage well the entire abdominal walls for some ten to twenty minutes at a time.

Nothing in the whole armamentarium of the profession

can compare with the relief which these *baths* afford even in the most extreme cases of suffering with singultus, stercoraceous vomiting, etc.

I here recall the case of Mrs. G., a prominent lady, active in society-work in Salem to-day, who some twenty-five years ago had an attack of appendicitis, at that time termed typhlitis, who had been some eleven days without a fecal discharge, although injections of warm water had been freely employed. When finally the vomiting became stercoraceous and continued so for nearly twenty-four hours, and the agony of death was rapidly approaching, as a last resort, I obtained a sitz bath tub, filled it with hot water and placed her in it and kept her there some fifteen minutes with the water as hot as could be well borne. This gave her almost complete relief for some thirty minutes afterward; when the vomiting and distress returned, and I again gave her the hot bath, which was followed by the same relief as in the first instance for some twenty minutes longer, when the bath was repeated with like results, after which I gave her an injection of nearly three quarts of warm water and the desired result was secured, namely, a large and complete evacuation of the bowel, and a good recovery followed. Some twenty-five years have now elapsed and the lady is in excellent health to-day, although she had a second attack some twelve years ago, which was relieved quite promptly by similar treatment, without any of the unfavorable symptoms presenting, as in the first instance.

From that day to the present I have never failed to use the hot bath in all such cases, with the happiest results. There can be no doubt to my mind but that the hot water so applied relaxes the spasm or obstruction, and at the same time stimulates the contractile and vermicular action of the appendix and bowels, so that the obstruction or inspissated fecal mass becomes disintegrated or dislodged, and the regular peristaltic action of the bowels is resumed,

and a regular movement of the bowel follows, affording the desired relief and permanent recovery.

I well know that the ætiology or causes of the disease may be classified as twofold, and the treatment varied by the exciting cause.

In the first class may be included all those causes which are permanent and ever present, as, for instance, the anatomical position of the appendix, and the constant presence within it of fecal matter in a fluid state, which may become inspissated at any time on the deposition of a foreign substance, such as a seed or spicula of bone which may occlude its lumen by causing a stricture; its free connection with the colon being thereby cut off.

In the second class may be included all temporary and exciting influences, such as colic, external injury, inflammation in general, or of contiguous organs, abdominal and pelvic, etc.

The anatomical position of the appendix enters as a prominent factor of this disease; situated in close relation to the ileum and the head of the colon, it may become twisted or kinked whenever the bowels become distended with gas or fecal accumulations, and in this way septic conditions arise. Indiscretion in diet, followed by digestive and intestinal disturbances of the ileum and colon, violent exercise of an irregular character, chronic inflammatory conditions of the intestinal canal or pelvic organs may induce the disease, and hence our selection of the remedy to be administered internally should be governed, not only by the special pathogenetic symptom present in a given case, but the selection should also be made with an eye to the probable exciting cause of the disease in the patient under treatment.

In the treatment of all cases the attending physician should let the bright ray of confidence and hope illumine his countenance and thus inspire courage and repose in his too often anxious and despondent patient. The most valu-

able and potent remedies are readily selected from the armamentarium of the homeopathic physician and their indications so well known that I will not take time to detail them here. They include belladonna, bryonia, arsenicum, lachesis, mercurius solubilis, nux vomica, rhus tox., and veratrum, to which may be added aconite, occasionally in the early stage of the disease, graphites, lycopodium, silicea and sulphur later. In fact there are many other remedies that may be called to our attention in possible complication of the disease, but your knowledge of the materia medica will serve you in all such instances.

This ulcerative inflammation of the vermiform process produces marked disturbances of the general system and often runs a severe and rapid course, unless assisted by prompt and efficacious treatment with the bath and the well-selected remedy, arresting the exhausting suppuration and perforation which may follow.

In the suppurative and last stage of the disease the hot baths have in all cases served me promptly, allowing, by the general relaxation of the various integuments, the exit of pus through, or by the obstruction, into the bowels, thus favoring resolution by the passage of the exudation through the intestinal canal.

The marked symptoms of recovery in these severe and protracted cases are found in frequently occurring fetid fecal discharges, with decrease in the frequency of the pulse, and the generally hopeful appearance of the patient. Unless the bowels act with regularity, and the strength of the patient improve, we may be assured that the disease has not been fully eradicated. Some days and even weeks may thus elapse before the recovery is complete.

The diet in all cases should be bland and mildly stimulating—no solid food should ever be allowed till we have evidence of the evacuation of fecal matter together with the passage of wind per anum.

Beef tea may be regarded as the best nourishment possible, if not rejected by the stomach.

In closing this brief and very imperfect paper let me entreat you one and all to try the use of the hot water baths as recommended here, and trust to the well-selected homeopathic remedy to crown your work with the most gratifying success.

TWO UNUSUAL CASES: TUBERCULAR MENINGITIS; CHRONIC HYDROCEPHALUS.*

BY

KATE L. HICKOX, M. D.

WHEN this child was born, December 11, 1891, the mother was forty years old and the father forty-two. There had been another child seventeen years before it, to all appearances healthy, but which died at the age of five years with some infantile disorder. Both parents had been in poor health for twelve years before the birth of the second child, the father having rheumatism and being extremely nervous. The mother never recovering her health after a severe attack of spinal meningitis; and also having uterine trouble. She was well through her pregnancy; had a short and easy labor. The child was the most perfect I have ever seen, mentally and physically—talking at nine months and walking at a year. Was unusually healthy, all little ailments yielding readily to remedies. When cutting his first teeth at a year old, had two convulsions of short duration; was circumcised at that time and never showed any more convulsive symptoms. The mother did not have nourishment enough for him; cow's milk he could not take in any form, so he was fed oatmeal, prepared to be taken through a bottle; a few drops of bovine were added; after

* Read before Missouri Institute, 1894.

he was nine months old he was very fond of it and seemed to thrive upon it.

At noon, July 29, 1893, he complained of being tired and asked to be taken—very unusual for him. Diarrhea began soon after. They came at once for medicine. In the night I was called; it had changed to dysentery. Merc. cor. 6x, three hours; opium 2x, two hours apart soon controlled the blood, but the frequent stools and tenesmus kept up several days longer. Then two front teeth came through and the bowels were much better, but he was very nervous, turning his head, uttering shrill cries, and continually saying "Up, please, up, please," but motion gave him no relief; seemed rather to increase his sufferings; did not sleep for sixteen hours. Apis. 3x controlled the turning of the head and the shrill cries, but his whole body was in constant motion. I was called hurriedly at nine one night and found him unconscious, whole body cold and in a profuse cold sweat. His face had the appearance of death; breath slow, labored and cold; he could swallow. Tried arsenicum, carbo. veg., camphor, brandy. We used hot applications, rubbed him with hot cloths, but all to no effect. Not knowing what else to do, tried a few drops of chloral hydrate and bromide of potassium prepared in a syrup. It was magical. He soon aroused, the sweating stopped, and he breathed easier. In the meantime I had sent for Dr. Keener. He came and suggested veratrum alb. and I added china. We cut two more teeth through. I left at 2 A. M., after giving directions that he should have a little food. Was called again at four; he was vomiting violently. That was controlled temporarily with ice, but continued at intervals for three or four days. Tried ipecac, arsenicum, nux vomica; at last gelsemium seemed to relieve him. Then he again began turning his head until the back was a denuded surface. We kept a soft cotton pad covered with white silk under his head and used oil on the sore. Hellebore had no effect. Apis aggravated. Then the inside of his hands cracked in

every joint; his elbows and knees were raw sores and his legs were covered with ecchymosis; his feet were cold all the time. Arnica 3x relieved the spots, and the sores healed in a few days. He was rubbed with oil several times daily to nourish him. The nausea again increased; he could retain no food until we gave him imperial granum, and at intervals a little brandy in water; he was relieved for a few days; then his scrotum swelled three times its natural size; had the appearance of dropsy; seemed very painful, for he cried a great deal. Puls. 2x gave relief, and, again, for a few days he seemed better; then began rolling his head, keeping up a whining cry and drawing his hand through his mouth. Dr. Keener saw him several times with me and at one of these visits lanced two double teeth. They came through, and the baby improved more than any time before; appeared to take notice of things around him (he had never seemed to be really conscious since the night of the collapse). They took him out of doors and he appeared to like the change. But the nausea was never wholly relieved. A few more days and two more teeth began to swell; the nausea was almost continual, much worse just before urinating; could retain no food until we gave him oatmeal as he had had it when well; three days after, the stomach and bowels would fill with gas till it seemed as if the walls would give way. Arsenicum 6x, hot applications, and massage would remove it; sometimes we would be obliged to insert a small tube in the rectum; the sphincter did not relax to allow it to pass. The formation of gas grew less and less for two or three days, then there was no more trouble with that, but the nausea was never controlled again. He was emaciated almost to a skeleton. There was never any trouble with the bowels after the first teeth were through. He gradually grew weaker until, thirty-six hours before death, he became very much distressed for breath; could be heard all through the house like a person with asthma. Arsenicum 6x, and opium 2x gave relief, and he laid quietly breathing shorter and shorter for twelve hours,

taking no nourishment until his breath stopped without a struggle.

I may not have given the time of each attack just right, for his sickness was of nine weeks' duration, and I kept no notes. But all through, after the collapse, there were signs of tubercular meningitis. The persistent nausea, the continual relapses, and the dullness of the mental faculties would all indicate it.

CASE II. Showing the action of homeopathic remedies.—The family history on both sides, as far as I could find, was good. The father and mother have the appearance of being unusually healthy people. The mother had been pregnant three times before, but miscarried each time between the third and seventh month; had been obliged to keep her bed the most of the time; suffering intensely from thirst and nausea. Her labors were severe, lasting from twenty-four to forty-eight hours. When she became pregnant for the fourth time, was very unhappy, expecting all her old troubles over again. She put herself at once under my care, coming to me every two or three weeks. I gave her remedies as she needed them, often there being a month or two at a time in which she would need none. At the fourth month there were signs of abortion. I gave her *secale* 3x and *bryonia* 3x. She stayed in bed two days and was quite well again. She would often walk twenty blocks at once, and one time rode in a carriage twelve miles into the country and remained three weeks, coming back in the same way, with no bad effects. When her labor came on, January 30, 1893, I was called at 2.30 A. M., and was obliged to stay at the house only one hour. She had pains only three hours in all, and none very severe. The baby, a girl, weighed about nine pounds and seemed very perfect. The mother made a good recovery and had no trouble except a little attack of hemorrhoids; which yielded readily to *nux. vomica* 2x, and *podophyllum* 3x. They brought the child to me frequently the first two months; but except for her crying a great deal, she seemed healthy. I did not

see her again until she was four months old, when I was shocked at her appearance. Her head measured $16\frac{1}{2}$ inches around the forehead. She took no notice of things about her, could not sit up, nor move her legs; they seemed paralyzed. The mother said her crying had increased and she seemed in pain. An examination revealed an umbilical hernia which protruded enormously when she cried. I had a truss fitted at once and gave her *calcareo carb.* 6x four times daily: an improvement began immediately; first, by beginning to notice the people about her, and next, by trying to sit up and use her legs. At the end of three months more, she seemed as bright as children of her age. Her head then measured seventeen inches, but never increased after that. At a year old could stand alone and say many words. At her first birthday they removed the truss altogether; the hernia seemed entirely healed. She had several attacks of diarrhea, and at one time was very sick with pneumonia, but all yielded readily to remedies. She still cries a great deal. I have thought that might be owing to her mother's unhappiness during her pregnancy. She has been for nearly a year kept on *calcareo carb.* 6x, with occasionally a little *silicea* 6x, at first four times daily, but later only twice.

A FORM OF DEAFNESS APPEARING AFTER PARTURITION.

BY

DUDLEY WRIGHT, M. D.

THERE have lately come under my notice several cases of more or less marked deafness which has apparently resulted from the ill effects of a confinement which, in some way or other, has run an abnormal course, and, more

especially, one which has been complicated by some septic trouble.

The deafness appears to be of a mixed nature, being partly traceable to an abnormal state of the conducting media, and partly—though in most cases to a larger extent—due to some lesion of the sound perceiving apparatus.

Whatever may be the immediate cause of this condition (I cannot in my own mind but think that some toxic agent is at work), the fact remains that some patients, after the birth of a child, complain of a gradually progressing deafness, which may for a period be unilateral, but which, in time, tends to affect both sides.

Accompanying this condition is usually a very depressed state of the general health; “hysterical” and other nervous symptoms are commonly present, and the patient complains of irregular action of the bowels, feebleness of digestion, headaches, and sleeplessness.

So far as objective signs of the ear disease are concerned, there is but little to record; for, as a rule, but few abnormalities are found either in the condition of the external ear, drum membrane, or eustachian tube; though there is not uncommonly some degree of pharyngitis and increased production of mucus. The chief evidence, however, is afforded by the watch and tuning-fork tests; and so far as the latter is concerned, it will be necessary here to make a slight digression so as to give an explanation of the methods used for examining these cases.

It is useful to employ forks of various pitches, for by this means much more can be learned than by the use of a single fork, whose evidence taken by itself may be misleading. I, therefore, use five forks, styled C, with 128 vibrations; $C^I=256$ vib.; $C^{II}=512$ vib.; $C^{III}=1024$ vib.; and $C^{IV}=2048$ vib.

It will be seen that each fork is an octave higher than the preceding. By means of these forks it is necessary to test, for comparison's sake, both the duration and initial

intensity of hearing by bone (mastoid) and air (meatal) conduction.

In the normal condition it will be found that the *initial intensity* of air conduction is considerably greater than that of bone conduction, and the same obtains so far as *duration* is concerned, roughly speaking, the proportion being $BC : AC :: 1 : 2$.

Below is a tabulated form giving the normal time relations in seconds of the forks I employ:

Rinné. (Intensity.)	AC	AC	AC	AC	AC
<i>Duration.</i>					
AC	40	17	60	60	35
BC	20	8	25	30	20
T-F	C	C ⁱ	C ⁱⁱ	C ⁱⁱⁱ	C ^{iv}

A disturbance of this normal relationship may be met with in any form of ear disease, and the indications afforded by such disturbances are, briefly, as follows:

A preponderance of BC over AC points to an affection of the sound conducting apparatus, and is usually first noticed from the lower forks of the series, and proceeds up the scale, and the higher up the scale of forks this inequality travels, the more extensive, it may be assumed, is the malady. Diminished, bone conduction on the other hand, indicates some affection of the nerve apparatus, and is usually noticed in the higher forks, and travels *down* the scale. Deafness to the high tones of Galton's whistle indicates a similar condition.

Examining by the light of the above facts the following table which represents the average hearing in the series of

cases which we are considering, we find that there is both a preponderance of bone conduction for the lower forks and a diminished bone conduction for the higher ones, and if we add to this fact that the higher tones of Galton's

Rinné. (Intensity.)	BC	BC	BC	AC	AC
<i>Duration.</i>					
AC	2	5	15	25	15
BC	17	10	25	15	7
T-F	C	C ^I	C ^{II}	C ^{III}	C ^{IV}

whistle were not heard in some of the cases, we see the reasons for concluding that there is both an affection of the middle ear and labyrinth.

These cases are unfortunately very difficult to cure, and treatment to be of much avail must be long continued. Such at least has been my experience. Acid phosph. I have found useful; but I have always used local measures for the middle ear, such as the use of the air douche or inflation of iodine or camphor vapor into the middle ear by means of the eustachian catheter. The state of the nose and naso-pharynx must also be carefully attended to.

It should be mentioned that the earlier the symptoms are treated the better the prognosis; and I have known of one case in which deafness of some intensity coming on quite suddenly a few days after a miscarriage, to a great extent disappeared within a week without any particular treatment, though I should doubt whether this form would quite come under the same heading as the class of cases we have been considering.

ON INCOMPLETE ABORTIONS.*

BY

E. S. BAILEY, M. D.

ABORTION is an interruption in pregnancy which a practitioner most heartily dislikes. Incomplete abortion is technically when anything is left inside the line of cleavage between the decidua vera and the reticulated or spongy layer of the serotina. This something is a part or all of the organizing placenta. In a practical way then, one part of the product of conception is cast off, one is retained.

It is a singular fact, but a fortunate one, that the cases of unavoidable abortion have about the same death rate as do cases that go to full term and terminate in normal deliveries. Ninety per cent. of married women who have lived to the menopause have aborted. It is difficult to accurately state the percentage of abortions to deliveries, but it is one to five or one to eight. In criminal abortions the death rate is high; how high there is no means of knowing. From the standpoint of a gynecological specialist in practice, I have repeatedly noticed that the evil effects of incomplete abortion are long lasting, are vicious, and the end is in sorrow. I do not need to follow out the methods of repetition and demonstration, but I do feel that a more thoughtful attention to, and a more complete mastery over, this class of cases is a necessity. It cannot be discussed too often, and there is danger of overconfidence if one method only is employed in the treatment.

The incomplete abortion cases to which I refer are those that are induced, or result from some forms of traumatism where there is little or no preparation for the act of parturition. In criminal abortion nearly every case is incomplete,

* Read before the Southern Homeopathic Society.

and leaves its train of symptoms afterward ; and the popular opinion is that if the pregnant uterus can only be made to bleed the result will be that expulsion of the contents will follow ; and the contents once expelled, somehow health will be restored.

In amenorrhœa the uterus can be made to bleed, but that does not constitute normal menstruation ; and often the little hemorrhage of abortion is followed by a cessation, and an active effort on the part of nature to remedy the evil done. Then, too, there is a popular opinion among certain classes that, if an abortion comes on during the first or second month, the after care is of very little importance—the baby was so little, or the flow stopped right away ; and a part of the physician's business is to educate their patrons and others that this is a serious and dangerous belief and practice, for all cases of abortion need care.

Two facts present themselves for constant observation : one is, the matter of the retention of portions of the membranes, or the placenta, which in nature's efforts to detach, or through decomposition from molecular death or gangrene, have commenced to undergo sloughing, and as poisonous substances are absorbed, and the truest form of blood poisoning follows. These tissues have become infected not according to the older doctrine of auto-infection, nor auto-intoxication, to use a more modern word—not that the lying-in woman poisons herself to death—but the source of infection is from without. This is one of the fundamental principles to keep in mind. The danger line is in contact, and not inherent. The second fact is that some portion of the ovum, perhaps the membrane, more likely the small placenta, being vitally adherent, has been retained. The discharges are profuse, devoid of odor, and the foreign intra-uterine body, being a portion of the incomplete abortion, is still vital. It still retains its nourishment, and its attachment is to the endometrium. In the unavoidable forms of abortion, as a rule, the expul-

sion of the uterine contents is carried on according to the conservative methods of nature; the parts are patulous, the uterine fibers rythmically contract, and the entire mass is extruded almost identically as in the more perfect form of labor.

In the incomplete form, nature's efforts are so interrupted by the retention of fragments, that completion is not reached and evil consequences are almost sure to follow. So long as any portion of the membrane or placenta remains within the uterus, just so long is the woman menaced by the danger of hemorrhage, or septicæmia, or both; and there is no justification in allowing these foreign bodies to remain shut up within the uterine cavity because it has sometimes been done without disastrous results. Hemorrhage may occur at any time, or septicæmia, by its insidious development, may sap the strength or destroy life or produce a condition of chronic invalidism. Just this neglect at this time is the most fruitful source of pelvic diseases in women. There is a possible exception that might be noted, *i. e.*, when there has been no infection.

The practical part is this: Cast the offending something off. The curette under antiseptic or aseptic methods is the cure; but the difficulty arises just here. In case the placenta is still vital the curette may scrape off only a portion of the decidua, and the bleeding surfaces are simply opened for recurrent hemorrhage. This still vital placenta is oftentimes better attacked by the placental forceps, under exactly the same rules as govern the use of the curette. The forceps having a long and curved beak, the edges may be engaged, and the line of cleavage is better served by the forceps than by the curette.

There is a physiological reason which follows that serves an excellent purpose in the subsequent management of abortive cases after the contents of the womb have been cleared out, and that is the subsequent packing with gauzes, either simple, sterilized, carbolated, or iodoform;

the packing for the first twenty-four hours remaining in the uterine cavity, the cervical canal, and the vagina as well. With the utmost care the fatality may be large, but with the improved technique in the operation it certainly will not be as great in the future as it has been in the past.

APPLICATION OF THE FORCEPS.*

TRANSLATED BY

B. F. UNDERWOOD, M. D.

(Continued from p. 63.)

I. APPLICATION OF THE FORCEPS UPON THE SUMMIT ARRESTED AT THE INFERIOR STRAIT.

THE dilatation of the uterine orifice having been accomplished, we may be obliged to employ the forceps at any part of the expulsive stage. It is not sufficient that the uterine contractions appear capable of terminating the accouchment; it is necessary to be able to give them, without risk or danger, the time necessary to accomplish that spontaneous termination. It will be sufficient, perhaps, to allow some minutes, a half an hour; but sometimes the interests of the mother, or more often that of the infant, require immediate and rapid intervention. This is for the mother, eclampsia, grave cardiac complications; for the fetus, asphyxia (difficulties of the utero-placental circulation on account of the long duration of the period of dilatation, embarrassment of the funicular circulation by compression of the cord, etc.). In these conditions the meconium evacuated gives a greenish tint to the amniotic fluid which escapes from the vagina; the sounds of the heart are irregular and lessened, even in the intervals of uterine contractions. This intervention, rapid, urgent, is the least frequent.

* From the French of Professor Farabeuf and Dr. Varnier.

More often intervention is necessary on account of the slowness of expulsion. When there are no complications to embarrass the case, we may wait about two hours after having established complete dilatation and broken the sac of waters if (this is common) it has remained intact. During these two hours the great majority of vertex presentations proceed successfully, and simply require watchfulness.

But, about four times in a hundred in the anterior position, and ten times in a hundred in the posterior position, the accoucher is obliged, whether he will or not, to have recourse to the forceps. For after two hours of normal waiting (an approximate period, entirely arbitrary), if it is not possible to fix the moment of deliverance, it will be necessary to use the forceps, for the soft parts of the mother may be injured if they are left too long submitted to the compression from the pressure of the head.

When intervention is made it is necessary only to carry through the inferior strait a head which has been rotated, but where the maternal force is not sufficient to push the grand circumference (sub-occipito-frontal) through the coccyx perineal ring. In some cases the head, although it has descended, has not rotated, and it is necessary to first give it the proper rotation before drawing it through the inferior strait. If it is in the posterior occipito-iliac position, the forceps, by one rotation of 45° , are carried from the occiput directly forward, then engaged, etc. If it is in a transverse position not original, the most common, since we are not at the superior strait, but the result of the transformation of an occipito-iliac posterior position in the way of good rotation, the forceps, by an active and complementary position of twice 45° , turn at first the occiput forward, then engage, etc. If in an occipito-iliac posterior position, the forceps have only very exceptionally to make a rotation of three times 45° to bring the occiput in front; for whether the spontaneous rotation has had the time to bring the occiput on the side, creating thus a transverse position,

or whether it is the hand which, introduced behind the head still oblique to place the first blade, provokes consciously or unconsciously the commencement of rotation, there is the same transformation.

This transformation from the oblique posterior position to the transverse, whether it be spontaneous or determined by the introduction of the hand, is a most favorable fact. In effect, we may see that the application of the forceps upon the vertex in an anterior direct, anterior oblique, or transverse position is in reality only the same facile and efficacious operation. On the contrary, if the occiput remains in the posterior position, to grasp the head with the forceps is a different operation: the pelvic curve should be at the moment of application necessarily turned toward the front of the mother, corresponding here to the front and not to the occiput of the fetus; the rotation necessary to bring the nape of the neck forward is considerable; and after this rotation the instrument is reversed, pelvic curve backward, handle pendant. Also at the time of the disengagement is it necessary to relieve the latter as much as in the ordinary cases. It is a special operation, rare, disputed even in its mode of execution; for the accoucher most engaged has not the opportunity to practice it sufficiently often to render him familiar with it. Finally, very exceptionally, less than twice in a hundred times in the anterior oblique position, the rotation of the occiput takes place spontaneously, but to the reverse; the occiput recedes instead of advancing, and turns directly backward, into the sacro-coccygeal cavity; the disengagement from the inferior strait and from the vulva is made in the occipito-sacral position, face upward, as the ancients said.

The mere fact that the occiput turns in the wrong way should not cause us to intervene immediately, for nearly always in these cases the labor terminates spontaneously, without injury to the mother or child. But it is not always

so, and we shall have to examine the method of using the forceps.

In the study of the method of applying the forceps we will suppose, on the mannikin, the condition in which we may operate on the parturient woman. These are the conditions :

I. The uterine orifice is dilated, or sufficiently dilatable. Therefore, there is no resistance to the introduction of the hand, nor to the blade of the forceps, nor to the extraction of the fetal head, nor of danger of injuring the neck or inferior segment of the womb during extraction.

II. The membranes are ruptured; consequently the blade of the forceps penetrates easily, and will be applied directly upon the head, without risk of seizing and making traction upon the placenta, which may loosen it prematurely and produce a hemorrhage. The woman, anæsthetized, if you have an assistant, is in the obstetrical position, that is to say, lying upon a bed sufficiently high to enable you to operate. The sacral region resting upon a resistant plane, and passing the edge of the bed sufficiently to disengage the posterior commissure of the vulva and anus. The inferior members, enveloped, flexed, and separated, reposing simply upon two chairs or upon the knees of the two assistants who with the hand maintain the necessary separation.

The forceps, previously warmed, perfectly purified, and in thorough condition. The external face of the blade oiled to facilitate its introduction. We will commence by describing the most simple, the direct application, that is to say, on the vertex descended and rotated, the occiput toward the pubes (ordinary case), or toward the coccyx (extraordinary case). The parietal eminences, the cheeks, the ears symmetrically placed on each side, applying the blades directly on the sides, pelvic curve forward, in both cases.

APPLICATION DIRECT.

A. *Application Direct, Common.*

[Summit at the inferior strait, rotation complete,
pelvic position.]

The descended head flexed, resting upon the inferior strait, for rotation has been made. The occiput is behind the symphysis pubes, the vertex in the neighborhood of the coccyx; directing the touch according to the anterior, posterior, or sub-pubo-coccyx diameter of the strait, diameter completely obstructed by the head, the fingers following from the posterior fontanelle, the sagittal suture in the vertex. This being the line which will join the ears is horizontal and (the woman being in bed) situated almost in the horizontal plane of the posterior fontanelle, which is situated in the polar center of the head (*tourbillon des cheveux*). On the contrary, the line of the parietal eminences is on a plane brought nearer to the sacrum, by a good finger's breadth. One may say otherwise, supposing the woman up, that relatively to the transverse diameter of the strait or of the polar center of the head, the ears are a little forward and the parietal eminences, which it is necessary to seize in the openings of the forceps, a little backward (fig. 11).

In this position the head is narrowly encircled in the pubic vault, but there are posteriorly, and obliquely posteriorly, an interval capable of receiving the flat of the hand between the sacro-ischiatic ligaments and the temporal ligaments and the temporal or fronto-occipital region. A hand, introduced in one of these postero-lateral spaces, the palm in contact with the fetal head—for example, the right hand introduced to the left (fig. 13), will always be able to trace, with the end of the index finger, the anterior border to the ears; and between the uterine contractions the head is not immovable and will recede sufficiently for this purpose.

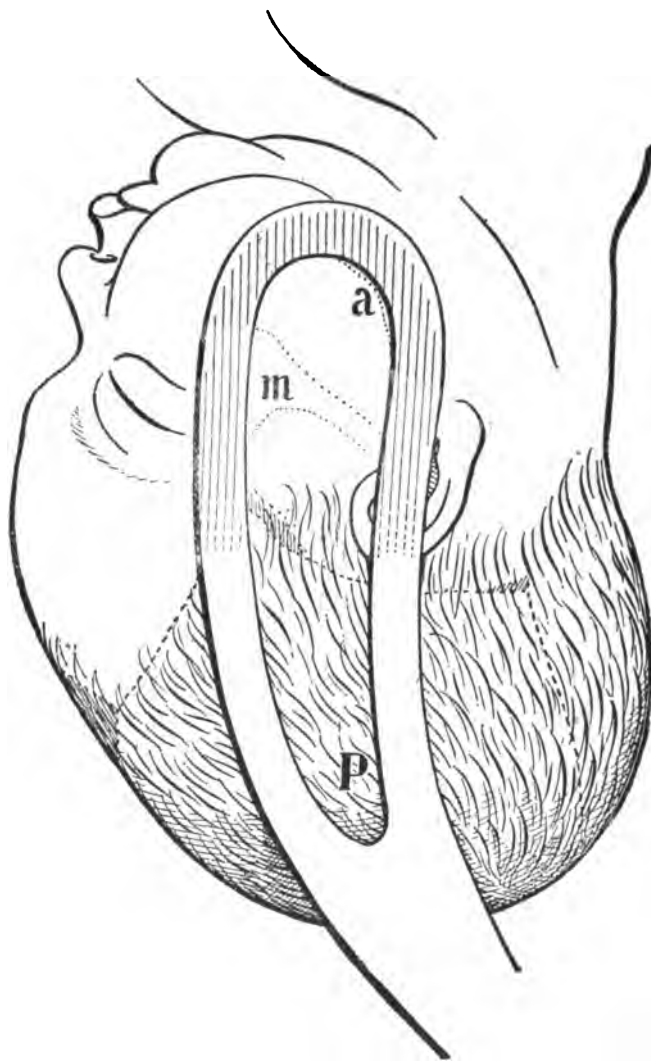


FIG. 11.

1. Referring to figure 11 it will be seen that it is necessary to take the head in length, near to the ears, following a line from the parietal eminences which are at the top, and

bordering on the other side of the cheek bones, which are at the bottom. The forceps have a curvature called the pelvic, which is intended to accommodate itself during the entrance and withdrawal of the blades to the pelvic-perineo-vulvar roof, the concavity of which embraces the symphysis pubis. When each branch of the forceps will have been placed with its concavity turned, like the neck of the fetus, toward the pubes, the progression and the deflexion of the head will develop the coccyx-vulvar floor, formed of the soft parts, and strongly curved, of the maternal roof, without the blades of the instrument ceasing to be parallel to the axis of the roof, inoffensive from one end to the other.

Here, consequently, as the position is direct, the left blade of the forceps, when it is placed, should be found directly to the left, and the right blade directly to the right.

2. When the blades are properly placed, the notched or mortised branch, the right, should necessarily cross over the left or pivot blade. Therefore, the right branch, which can only be articulated above the left, requires to be introduced second. Consequently, the left branch, held in the left hand, will be introduced first, the blade will be placed directly to the left, the handle afterward held lower. The right branch, held in the right hand, will be placed second; the blade directly to the right, and the handle crossing the first and articulating with it.

3. The hand which does not hold the forceps should always precede the blade and guide it into the maternal parts. *The first guiding hand should be, must be, introduced into the uterus as far as the level of the ears of the fetus, the second, if it cannot penetrate so far, should always, at least, pass the border of the uterine orifice.* This is a general rule, absolute, which should be observed at all applications of the forceps. [Pinard.]

Therefore, the left blade, held in the left hand, has for a

guide the right hand introduced to the left, between the head of the child and the uterus, as far as the ears; and the right blade, the handle of which is held in the right hand, has for its guide the left hand introduced to the right, between the head and the uterus, in such a manner as to surely pass the edge of the orifice. This is the main part of the introduction and of the placing of the hand which is to act as a guide upon which the success and the harmlessness of the operation depends. This hand clears the way with softness; as soon as possible the ends of the fingers should be applied to the naked fetal parts for the purpose of being assured of having entered the neck of the uterus, which it is sometimes possible to feel under the form of a ring at a very little distance from the anterior vulvar commissure, but more and more distant from the vulva as the posterior median line is approached. It is therefore not in this region that it is necessary to seek. Outside of that cervical ring or margin of the orifice, which may be particularly felt when the neck, however easily dilatable, is not yet open to the maximum, which is not very often the case in the direct position, the vaginal cul-de-sac is depressible and the fingers may go astray there. If unhappily the beak of the blade follow they will pinch the neck of the uterus upon the head, or worse still, will perforate the cul-de-sac and seize with the head a large part of the inferior segment of the uterus. The guiding hand, however careful and attentive, cannot always recognize easily the cushion of the neck of the uterus, sometimes very thin; it will therefore be necessary to surely recognize the naked surface of the fetal part. It will penetrate deeply, for it is necessary that it should be in the uterus to sufficient height to protect the maternal walls against possible injury from the beak and the edges of the blade; it will be sure of being there if it reaches and feels the ear, or if it has felt entirely free the ear, or if it has felt entirely free the margin of the uterus. The first guiding hand may be the one or

the other, affirms M. Pinard; the second may be content with the mark furnished by the margin of the orifice. In the direct position there is so little space between the parietal bones and the sciatic spine that the anterior finger, the index finger of the first guiding hand, has difficulty in insinuating itself to discover the ear. This, therefore, is the difficult moment of the operation, and one should employ all the patience necessary to accomplish it.

The point of departure is well established; you can figure to yourself perfectly the vertex and its position, directly occipito-pubic; you know when and where you should place each blade, which hand will guide it, which hand will hold the handle, and how the crossing and articulation will be made. Such is the summary of what is necessary to be done to place the forceps in position to be serviceable. When the forceps are applied and articulated (fig. 12) we will learn how they will serve to extract the head.

Figure 12. Summit in position, directly occipito-pubic, regularly grasped by the forceps. As in all analogous

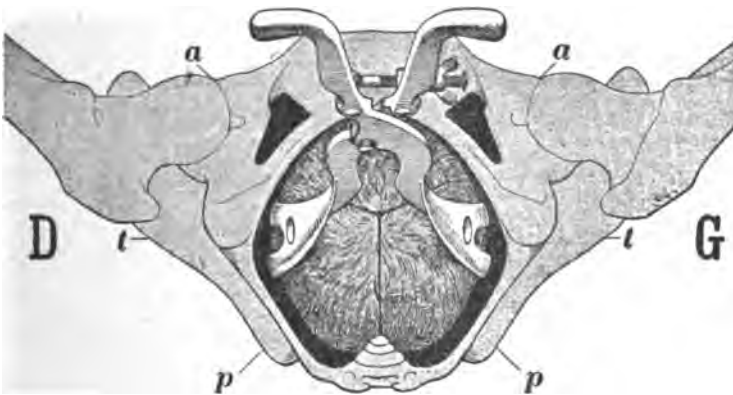


FIG. 12.

figures, the view is directly horizontal to the center of the inferior strait (accoucher sufficiently low and the bed

elevated). The parietal eminences are held in the opening of the blades.

Figure 13. Summit presentation, position directly occipito-pubic. Introduction of the first guiding hand—the right—to the left side of the mother, the hand, without the thumb, has penetrated as far as it can, backward

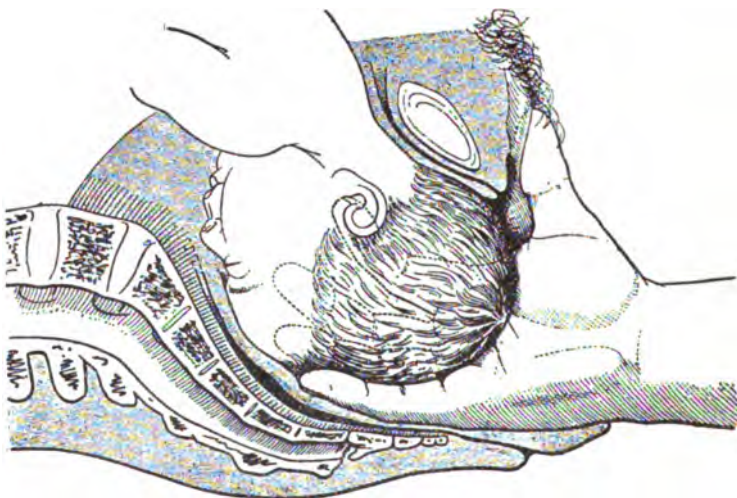


FIG. 13.

and to the left; the index finger will feel and recognize the corresponding ear symmetrically placed to the one shown.

FIRST BRANCH, LEFT BLADE, PIVOTED—GUIDED BY THE RIGHT HAND—HELD IN THE LEFT HAND.

Introduction of the guiding hand.—The first guiding hand, the right, oiled upon both surfaces, is introduced into the vulva as far the metacarpus. This is sufficient in the direct position. The thumb therefore remains upon the outside, but the four fingers and the palm of the hand penetrate as deeply as possible. We have said that it

is not necessary to place the hand directly upon the side. It is therefore backward and upon the side, between the coccyx and the ischium, in the region of the sacro-sciatic ligaments, that the guiding hand should penetrate.

With *primaparæ*, the ends of the fingers will experience some resistance upon the part of the vulva, which will be easily overcome by a continued soft pressure. The vulva slowly dilates under the pressure of the fingers, but still opposes some resistance to the metacarpo-phalangeal articulation. When this has been overcome the palm glides easily onward as far as the commissure of the thumb.

Soon after their introduction the fingers will encounter the head (covered with hair) of the fetus, with which they are to be kept in contact. To enter the inferior strait, that is to say, to pass between the head and the muscular bridle of the coccyx, a bridle so powerful that to overcome its opposition this operation is necessary, the operator should employ some force. It is possible, and necessary, to penetrate into the cavity the length of the fingers, as far as the heads of the metacarpal bones. While making the passage it is necessary to recognize the border of the uterine orifice.

Properly introduced, the hand occupies the corresponding half of the sacro-sciatic cavity; the dorsal surface being turned obliquely on the side and toward the floor. The palm embraces the parieto-frontal region, the little finger resting upon the sagittal suture and the grand axis of the vertex, the end of the index finger upon the temple (fig. 13). This finger, thanks to the receding of the head which has taken place, may be pushed far enough forward to feel the ear: mark of certainty. We see, therefore, that the axis of the guiding hand, axis in which the blade is to be introduced, does not correspond to the line of proper seizure, the parieto-malar line, because the hand cannot ordinarily insinuate itself entirely on the side. This is of little importance, for the blade, properly introduced in the axis of the hand, that is to say, too low down

or, on the contrary, too far in front, maybe, on account of its thinness, brought by itself, if it is necessary, directly on the side of the head, that is to say, on the parietal eminence and the cheek.

Presentation, introduction, and placing of the blade.—The guiding hand, the right, being in place (fig. 14), the left hand taking the left blade places the flat surface of the back of the beak in the palm of the guiding hand. It should be remembered that the blade, image of the hand, should glide in contact with and in the axis of this hand. To do this the left hand, which holds the handle up, a little to the right of the maternal median plane, inclines, during the lowering, toward the left of the mother. This lowering and inclination, in the presentation of the blade, is guided and directed by the guiding hand. It is this hand which commands the other hand to modify its movements of the blade if it is not properly directed, that is to say, to enter, without forcing a space, between the head and palmar surface of the fingers.

It is necessary, therefore, to watch attentively to see that the blade penetrates upon the axis of the guiding hand, which should always overlap it, so that it may be perfectly applied throughout its entire length and breadth, especially by the flat surface upon the back of the beak. Study carefully the work of the hand, lower a little more quickly the handle, and bring it toward the maternal left. If on the contrary the beak quits the hand and menaces the skin of the head, forming a fold of the skin upon which the blade slips and stumbles, raise the handle a little to the right of the mother. The guiding hand watches and commands, the hand which holds the instrument obeys. This hand should know the direction and extent of the movement, but should act only under the unceasing control of the guiding hand. The penetration is sufficient for the time, as soon as the beak has passed the end of the fingers and in consequence fitted itself to the frontal eminence.

Figure 14. Summit, position directly occipito-pubic. The first guiding hand, the right, is in place, backward and

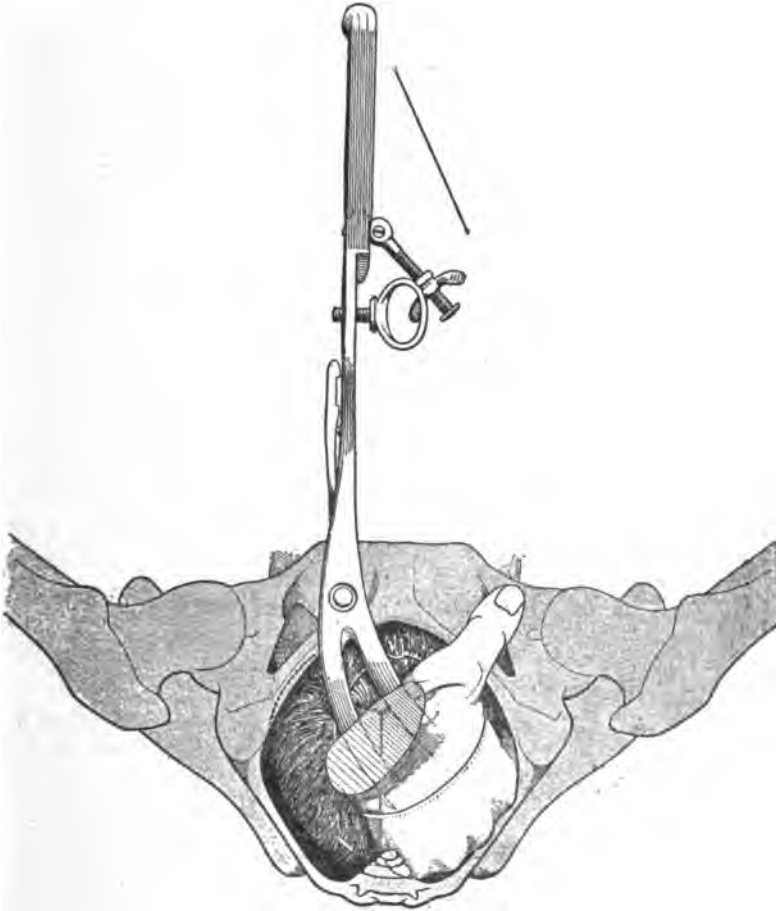


FIG. 14.

to the left, on the meridian line of introduction of the left blade (pivoted blade).

Figure 15. Summit, position directly occipito-pubic. Presentation of the first blade, which enters backward and

to the left, guided by the right hand (fig. 14). The blade enters regularly; the hook lowered obliquely, following the arrow, will not be applied at the first onset to the parietal

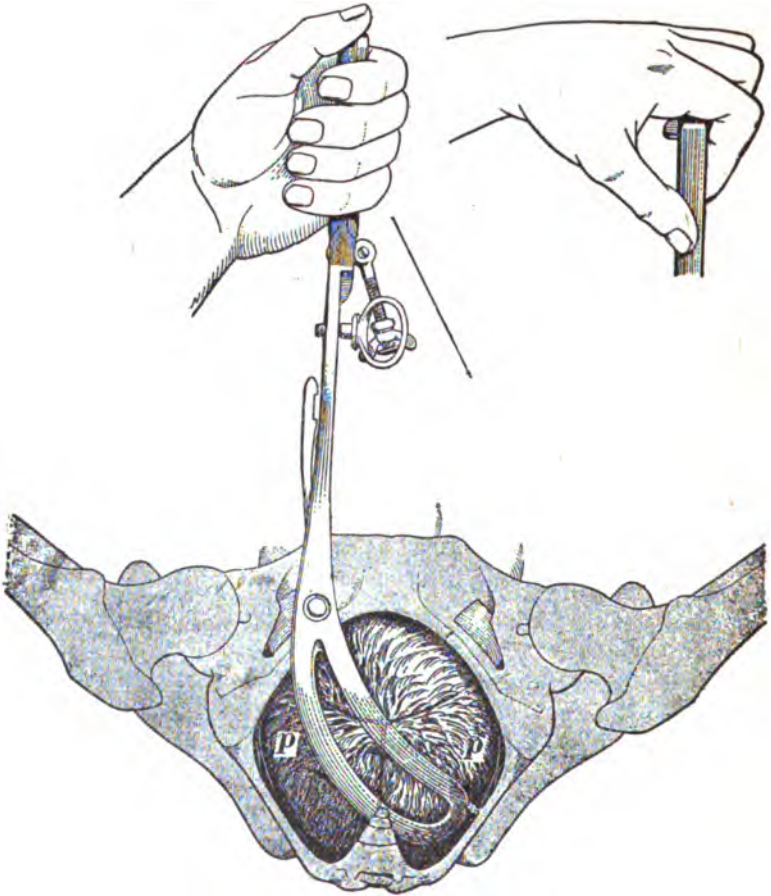


FIG. 15.

eminence *p*, upon the side on which it is to be placed. The drawing shows the two most useful methods of holding the blade of the forceps.

At this time the fenestra of the blade has become con-

cealed within the vulva: it is in the proper position as regards the length of the cephalic ovoid; but, like the guiding hand, it is too low—not enough on the side.

To carry it on to the parietal eminence and the cheek, it is necessary to rely upon the action of the hand only which controls the handle. This is to the left of the maternal median plane, the hook directed obliquely as the concave face of the blade, upward and to the right of the mother. Simultaneously lower the hand, for the beak must enter still farther; carry it back toward the right thigh, for the parietal eminence throws the blade to the left; finally twist lightly and carry the hook, which is raised obliquely, so that it points directly to the right of the mother; this will cause the blade in gliding upward to move forward in the form of a loop (fig. 16).

Figure 16. Summit, position directly occipito-pubic. Placing in position the first blade, the left.—The white forceps represent the pendant blade; its introduction backward and to the left will be accomplished when the hook has descended farther, following the oblique arrow to the right. Then the hook, undergoing a triple movement of lowering, removal, and turning, in the direction indicated by the curved arrow, will have become transverse [shaded handle] and the blade will take its position directly upon the side upon the parieto-malar line.

This action, complex and triple, forces the blade to pass the border of the guiding hand and enter alone in advance of the index finger, upon the line of good taking, completely on the side. The final placing, which the weight of the handle of the forceps is nearly sufficient to accomplish, is really made by a light spiral movement which the guiding hand recognizes, sometimes directs, and always favors in retiring as the result is obtained.

Leave the left branch resting upon the posterior commissure of the vulva, held by an assistant, who, underneath the right thigh, holds it delicately immovable near to the

median line, without pressure, but preventing any movement of the blade. Raising the handle again will lower the beak of the blade toward the front; lowering the handle, pressing down the fourchette, will carry the beak upon the neck

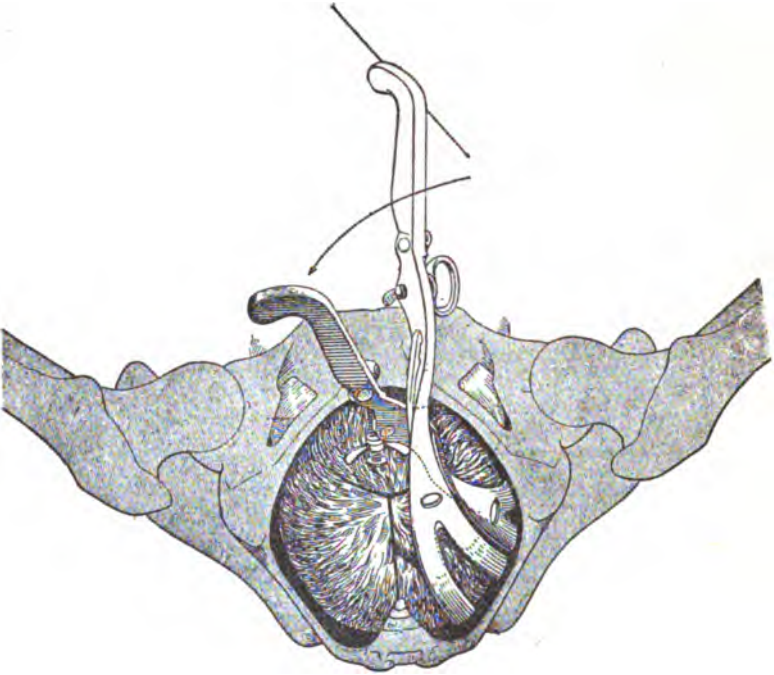


FIG. 16.

and bring the opening in full upon the ear. Bringing the handle nearer to the left thigh of the mother pushes the blade and the head to the right of the cavity, suppressing or at least lessening the interval necessary for the introduction of the second blade.

The assistant should not forget to watch the transverse position of the hook: certain index that the blade is placed directly upon the side of the pelvis.

(To be continued.)

PREPARATORY TREATMENT DURING GESTATION.

Deductions from an investigation made to ascertain how to meet promptly and efficiently the more common departures from a natural physiological condition that occasion suffering and danger.

INQUIRY made, if engaged in advance of expected birth do you prescribe if condition is normal?

Forty-four answer no. Thirteen answer yes.

"It is my custom, if engaged in advance of expected birth, to put the patient under treatment during the six weeks preceding confinement."—Dr. W. F. Baily.

"I often give a few doses of cimicifuga or pulsatilla during the last two weeks of gestation."—R. A. Adams, M. D.

"Yes, I give actea 2x or 3x for two or three weeks before confinement, even if there is nothing abnormal."—George Royal, M. D.

"The last two months of pregnancy I give actea 2x decimal four times daily."—Dr. Kate L. Hickox.

"Usually give pulsatilla or cimicifuga 12x, a dose every night for the last two or three weeks."—A. M. Cushing, M. D.

"Yes, frequent warm baths and oil inunctions."—A. J. Smith, M. D.

"Have a few times prescribed cimicifuga 1x, apparently with benefit, sometimes with no benefit (in stout persons)."—M. A. Duffield, M. D.

"Yes, pulsatilla or cimicifuga according to temperament."—W. I. Tyler, M. D.

"Yes, I always give macrotin 1x trituration, two grains, *ter die* for four to six weeks previous to confinement. I believe it aids in giving a normal labor. That is my experience with it. *Vide*, 'Actea racemosa: its possible place in therapeutics of gestation and parturition,' *N. E. Med. Gazette*, August, 1894."—Lamson Allen, M. D.

"If engaged in advance I watch the mother, and usually find something that needs attention. Pulsatilla, more than any other remedy, has been indicated."—H. R. Arndt, M. D.

"If conditions are normal in expected confinement I prescribe nothing. If former confinements have been as a rule tedious, I prescribe cimicifuga and silicea."—J. B. Westcott, M. D.

"No medicines, but sitz baths and lard to perineum, for two or three weeks prior to expected time of confinement. Both daily."—A. L. Fisher, M. D.

"No, but I have twenty minutes chat on 'How to carry yourself during gestation in order to have a safe labor and a quick rebound.'"—Alexander Berghaus, M. D.

"My practice is to prescribe for every patient when I am expected to attend, and I believe this to be good practice."—A. I. Harvey, M. D.

"No. However, very few expectant mothers are in a normal condition."—C. G. Higbee.

Materia Medica.

Gelsemium in Diphtheritic Paralysis is the remedy *par excellence*.

Gelsemium for Ringworm.—Ringworm will be promptly cured by painting a few times with fluid extract of gelsemium.

Carbo Vegetabilis in Whooping-cough.—Unless better indications are present, begin every case of whooping-cough with carbo vegetabilis.

Caulophyllum in Dysmenorrhea.—Dr. J. S. Ayers of Newark expresses unabated confidence in caulophyllum in dysmenorrhea and in threatened abortion.

Alumina in Leucorrhea.—Alumina is a great female remedy. It has a profuse and albuminous leucorrhea, which may run

down the limbs to the feet. Must strain at stool to urinate. Has a horrible "constipation."

Calcarea Phos. in Headache.—Dr. S. F. Shannon.—This is the remedy for headaches of school children usually accompanied by diarrhea; usually the pains are most severe near the sutures.

Rhus Aromatica in Enuresis.—Dr. Worthington (Hom. Record) has come, after an experience of some years, to almost absolute dependance on *rhus aromatica* in this complaint. It has to be given, however, in ten-drop doses of the mother tincture.

Æthusa in Diarrhea Diseases.—*Æthusa cynapium*, the garden hemlock, or fool's parsley, has symptoms characteristically peculiar to children, especially in the gastric and bowel conditions, where the ejecta form white curds like bits of chalk, or candles, or "gobs" of pot-cheese.

Hepar Sulphuris in Otorrhœa.—Dr. Cooper (Hom. World) states his experience to be that *hepar* only permanently benefits otorrhœa when this dates from scarlatina. Further, that while the lower dilutions best control the discharge, any coincident impairment of hearing yields more surely to the thirtieth.

Pulsatilla in Enuresis.—Dr. J. P. Cobb (Clinique) thinks that this trouble often results from an irritating quality of the urine (which is dark and loaded), this itself being traceable to digestive disturbance. In such cases the patient can generally control the bladder during the day, though at night the urine escapes. He finds *pulsatilla* the best remedy in such cases, and relates an instance in which the 3x dil. did everything that could be desired.

Thlaspi in Metrorrhagia.—Dr. H. Mason (Monthly Hom. Review) records a case of uterine hemorrhage, following upon a miscarriage, in which, after not medicines only, but operative procedures, had failed, *thlaspi bursa pastoris* cured. There were two special points of interest about the case—one that the plant was given in infusion, half a pound of the dried herb being added to a quart of boiling water, of which a wineglassful was taken three times a day; the other that a too long continuance of the remedy seemed to cause a recurrence of the hemorrhage, for the latter quickly ceased on the discontinuance of the former.

Sanguinaria Can. for Headache. where the pain increases till noon and gradually decreases. Nausea, vomiting, flushes of heat, pains worse on right side, in forehead and vertex, or begins in occiput and settles over right eye, pain throbbing, lancinating in character, especially indicated in women at the climateric.—Dr. Stella M. Clark.

Ipecacuanha in Strumous Ophthalmia.—Dr. Boyle regards ipecacuanha as one of the best remedies in phlyctenular keratitis in children, with redness, photophobia, and lachrymation. It acts where you would think conium would be the remedy, but conium has disappointed him so that he does not think of using it any more in those cases.

Kalmia in Diphtheritic Paralysis.—Dr. Allen relates a case of post-diphtheritic paralysis, in which the heart failed, pulse going down to 38, face pale and pinched, cold extremities Digitalis helped at first, then lost its power; but kalmia 6 “was like magic, acting instantly and holding him—no slipping back this time, and before morning the danger was over.”

Lycopodium in Diphtheria.—The limitations of the diphtheritic exudation to the right tonsil, or its first appearance upon the right side, has long been maintained as a special indication for lycopodium in diphtheria. In a discussion on the subject, at the New York Homeopathic Materia Medica Society, Dr. Deschere, giving the indications for lycopodium, said: “The affection may or may not have started on the right side of the throat or in the nostrils; it is, however, generally worse on the right side.” Another speaker said three of the worse cases ever seen by him were worse on the left side of the throat, but were cured by lycopodium.

Magnesia Phos. in Dysmenorrhea.—Hom. World—A young lady, aged twenty-four, had been troubled every month since her puberty with severe pains in the uterus, back, and loins, beginning several hours previous and continuing during the first two days of the period, and so severe sometimes that they seemed almost unbearable. On the second day of flow she had hysteric fits. On the third day, when a membrane was discharged, the patient was free from pain, and she had a flow for six

to seven days every month. Her husband, finding no chance of her bearing children, made up his mind to take a second wife. Her mother-in-law came to me and stated the facts. I reassured her, saying that it was the dysmenorrhea which was the obstruction in the way of conception. As soon as it was removed she was sure to conceive. In December last, when she had this pain, I was sent for. I saw the lady almost mad with pain. I gave her magnes. phos. 4x every ten minutes, and in an hour the pain ceased and flow began. I gave her five doses of the remedy, to be taken twice a day for three days. Next month I advised her to take medicine three times a day, beginning a day before period, and on the first day of period to take it every three hours. She had but very slight pain this time. The same process was repeated the third month, when she had no pain at all, the flow was normal and remained till fourth day, and since she has had no return of the dysmenorrhea.

Obstetrics.

Albuminuria of Pregnancy.—Henri Huchard, *Journal des Praticiens*.—Preventive and curative treatment: Milk diet; absolute repose, if possible; no traveling; no drugs.

Predisposition to Puerperal Convulsions.—Professor Parvin says a nervous woman is more predisposed to puerperal convulsions than one whose nervous system is not over-sensitive.

Reposition of Prolapsed Fundus.—Dr. Harvey describes a very simple apparatus for replacing a prolapsed fundus. It consists of two loops of tape, an upper and a lower, stitched together. The cord is put through the lower loop. The upper loop is carried up into the uterus on a rod of any kind—a bit of bamboo, a catheter, or a stilette. The introducer is taken out during a pain, and the tape left behind.

Rare Case of Twins.—Epszstein, Nowiny Lekarskie—describes a case of twins in which one child was born six days before the other. He was called to attend the woman the third day after

the delivery of the first child. As there was no special indication for interference, he decided to wait, the surroundings of the patient being such that infection might have followed any operation, while hemorrhage might have resulted. Labor proceeded naturally, and both the children lived.

Treatment of Obstetrical Cases.—My theory in obstetric cases is that the less you meddle with nature, the better results you will have. Of course, any abnormal condition during the pregnant state (whatever that may be) must be met just as any other diseased condition must be, and the fact that the woman is pregnant may be the cause of the disturbance, and can have, or rather should not have, any influence with us as regards her treatment.—J. E. LILIENTHAL.

Treatment of Abortion.—Dr. M. N. Ohdebar believes the administration of ergot before the os is dilated harmful; that it produces uniform contraction of every part of the uterus, including the os internum, and thus delays dilatation, and therefore expulsion. He advocates strongly the use of the curette in cases in which the secundines do not come away after a fair trial has been given to rest and plugging. He believes it perfectly safe, that it lessens the chances of septicæmia and endometritis, favors involution, and hastens recovery.

Accidental Hemorrhage in Labor.—W. J. Smyly, British Med. Jour.—When the os is small and labor pains weak or absent, preserve the membranes intact as long as possible; in external hemorrhage plug the vagina. If labor is well advanced, rupture the membranes, and if hemorrhage continue, deliver by the safest method available. In internal concealed, and in some cases of external, hemorrhage, if a vital necessity, deliver by *accouchement forcé* or Porro's operation. In all cases proceed with as little force and precipitation as possible.

Charge of Manslaughter against a Midwife.—Mrs. Rake of Kentishtown, London, England, was lately held on the charge of manslaughter, after an inquiry into the circumstances attending the death of Hilda Gray, aged twenty-four, from puerperal fever. She had been attended by Mrs. Rake, a midwife, who, it is alleged, had continued to attend cases after being requested by

Dr. Sykes, the medical officer of health of St. Pancras, to desist from doing so, his attention having been called to three cases of puerperal fever in patients under her charge, and subsequently to two more, and then to three more—eight in all. It transpired in the course of the inquiry that of these eight cases five had died, and Mrs. Rake was committed for trial.

Efficient Disinfectant for the Sick-room.—The fetid exhalations emitted by the fæces are a source of great annoyance to patients condemned to a prolonged sojourn in one room. M. Meillère strongly recommends the following powder as an efficient and very cheap deodorizing and disinfecting agent: Sulphate of zinc, 1000 grams; sulphuric acid, 5 to 10 cc.; essence of mirbane, 2 cc.; coloring matter (e. g., indigo blue), 15 centigrams. About five grams of this salt are placed in the bedpan before it is used. Contact with urine or liquid stools determines prompt solution of the salt, deodorization is instantaneous, and the liquid excreta are at once sterilized. The fetor is transformed into a rather agreeable odor. The employment of this method allows, also, of the preservation of the excreta for microscopical examination.

Signs of Fetal Maturity.—Dr. Frank.—The result of a series of tables on the alleged proofs of full-term gestation are essentially negative. The development of lanugo and the length of the nails are in themselves of little value. The temperature of a newborn child is a fallacious sign; it may be influenced by partial asphyxia during birth or other circumstances not peculiar to nine months' infants. When the circumference of the head is under 32 ccm. (12.48 inches), the child can hardly be mature, but premature children may have heads of a greater circumference. Every case must be judged on its own merits; the child's sex and the number of previous pregnancies should be taken into account. Frank warns us against supposing that a mature fetus has necessarily been borne the full term in its mother's uterus.

Success in Obstetrical Work.—In thirty-six years' practice I have been very successful, having lost but one woman in connection with confinement, and that was a case where the babe was born four or five months before it ought to have been expected, and is now almost seven years old. The surprised grandmother's pride was seriously affected, and

she reproached her daughter; puerperal fever ensued. I have had almost every form of presentation and very difficult cases. I believe that the obstetrician should have "the hand of a female and the courage of a lion," and should *assist nature* without being meddlesome or interfering unnecessarily. The worst case I ever had I foresaw the danger within six hours from commencement and provided for it, having two skillful assistants, and an enormous child was born within fourteen hours of the commencement of labor, and stillborn. I do not resort to instruments while the patient's strength holds out and progress is being made with a fair prospect of natural labor. I have never employed antiseptics, except *cleanliness* and a free use of calendula. I believe an accoucher should be well-informed and have his wits about him, using refined common sense.—DR. EDWARD P. SCALES.

A First Case.—I well remember my first lying-in case. I would have given everything I had to be out of it, and said to myself, "If I ever do get out of this thing, they will never catch me here again. I'll saw wood for a living, I'll shovel coals, I'll dig the trenches for the gas pipes—but not any more of this for me." All this because I was taught no details.

My knowledge of pelvic diameters, pelvic straits, and fetal measurements were of little avail. Now our students are taught a perfect technique—the dressing of the lady and her couch for labor in all its details. And our better students are capable of training a class of nurses in all their duties. It was this cruel want which made me develop this technique for myself and my students. With it the duties of the lying-in room are not only endurable but really delightful.

So that one of my *confrères* says, "Grosvenor had rather go to a confinement case than a banquet." To-day it is the pleasantest part of my work, and it has for fifteen years averaged something over 200 cases a year, the highest being 227.—L. C. GROSVENOR, M. D.

Treatment of Early Abortion.—Dr. Schauta recommends a conservative treatment of early abortion. The old rule that pain and hemorrhage combined mean inevitable abortion is not always true, and the accident is preventable as long as the hemorrhage

is not excessive or the cervix dilated. Do not try to check the bleeding, but trust to rest, which is continued for eight days after the last bleeding. In cases where the os dilates and abortion becomes inevitable, tampon with a strip of iodoform gauze about two yards long and the width of three or four fingers breadth. Retract the perineum with the fingers of the other hand instead of using the speculum, and renew the tampon at the end of twenty-four hours at the least, removing it sooner if the appearance of sacral pains indicate that the ovum has been exposed from the womb. This method of treatment is in sharp contrast to the radical advice so often given of late to go in at once and curette out the womb as soon as an abortion becomes inevitable, a practice which is objectionable because of the danger of leaving fragments of membrane behind.

Vaginal Secretion of Pregnancy.—Dr. B. Kroenig claims to have demonstrated that not only is the vaginal secretion in normal pregnancy free from pathological germs, but that it has a distinct germicidal power. Experiments were made in a great number of pregnant women by introducing into the vagina at a considerable period before labor different kinds of germs, and then at stated intervals withdrawing secretion for examination, taking it both from the vaginal entrance and from the fundus vaginæ. The bactericidal power of the vagina was first shown in the case of the innocuous pyocyaneus. Soon the lowest and then the highest part of the vagina were found clear. Further experiments were made with staphylococcus and streptococcus, and it was found that the secretion was equally active whether the vagina contained the "normal secretion" or the so-called pathological secretion described by Doederlein. But Kroenig rejects Doederlein's view that the vaginal secretion described by him as pathological is really so. In these experiments the streptococcus was killed first, the staphylococcus and the pyocyaneus needing almost twice as much time. The vagina was found clear in two days at longest. He further shows that syringing the vagina with antiseptic solutions has the effect of reducing or completely destroying its germicidal powers. Syringing with simple water only slightly weakened them. Hence Kroenig concludes that prophylactic syringing should be given up. It does

no good and much harm. Even in pregnancy with gonorrheal infection it is best omitted. At the Leipzig clinic they consider that they get better results by the abandonment of syringing than by its adoption, and Kroenig advises that disinfection of the internal genital passages should be abandoned as part of the routine of antiseptic midwifery.

Abortion.—Dr. B. H. Wells (Med. Rec.) strongly urges that, in every case where abortion or miscarriage begins acutely from natural causes, the ovum be removed by the finger, ovum forceps, or curette, within twenty-four hours after the abortion be considered inevitable, if the entire ovum be not then already expelled, complete expulsion being usually indicated by cessation of pain and hemorrhage. In cases where a portion has been expelled; where there is serious hemorrhage; where the ovum is dead; where there is reason to suspect criminal interference; where there has been continual spotting, foul discharge, or fever, the uterus should be explored and emptied at once, as any delay greatly increases the risk of sepsis. The sharp irrigating curette, followed by gauze drainage, should always be used where there is septic material present or where the endometrium is diseased; in other conditions the finger or a dull instrument is sufficient.

Malarial Influence in Abortion.—Dr. A. J. Weatherly, civil medical officer at Kurseong, adduces figures taken from the records of his experience in Africa, Florida, and India, showing the effect of malarial poisoning in causing abortion. In the unhealthy parts of these countries abortions were to labors at term as about one to two (about one to five is the usual proportion). Dr. Weatherly found, moreover, that this was not due to the systemic disturbance of malarial fever, for the abortions often did not take place during an attack of fever; and in many cases the effect of malaria was only manifested by the habit of aborting. Sterility was, he believed, more frequent in malarial districts than in others; if women lived too long in a malarial district the sterility became permanent, but if they left before they had lived too long there, they might become pregnant. He observed that the same thing was well known to the natives to hold good of their sheep and cattle. They sent their stock inland to breed, and only brought them down into the malarial district for the

purpose of fattening. The administration of quinine to pregnant women in malarial districts rather tended to ward off abortion than to bring it about.

Lubricants in Gynecological Practice.—Dr. E. C. Dudley—When the vaginal secretions are profuse the lubricant is not required for the patient, while for evident reasons it is needed to guard the operator's finger. The infection of himself and of the next patient becomes possible. The lubricant should be aseptic and non-irritating. Olive oil and vaseline are often septic, and always hard to wash off. Soap, if strong enough to be aseptic, is apt to irritate the sensitive vulva. Glycerine is the best material; it is a deodorant; even after the digital examination of extremely fetid cancers the foul, nauseating odor, usually so persistent, may be washed off from the explorer's hand by placing it under a stream of running water, if before the examination the hand be freely lubricated with glycerine. For this purpose a superior quality of glycerine is necessary. Dudley employs a glycerine compound, kept in metallic tubes like paint. The tube is essential, as an open jar of lubricant allows the compound itself to be contaminated by the unclean finger of a careless gynecologist. The compound consists of glycerine, starch, powdered tragacanth, boric acid, and oil of wintergreen. The finger or instrument on which this glycerine ointment is to be used should be dry, else it does not adhere well. It is a perfect lubricant, non-irritant, antiseptic, and deodorant, not greasy, and readily washed off. A great advantage of this lubricant is the fact that, by its cleansing properties and by the healing effects of the glycerine, it counteracts any tendency to chapping of the hands, a serious disadvantage in large private and out-patient practices.

Atresia of the Uterus in Labor.—Professor Parvin reports a recent case in which it was impossible by any means at hand to discover any permeable opening into the uterine cavity, and he was compelled to make one with a small pair of scissors, which was then dilated by the introduction of a catheter and the fingers, and the child delivered. At the end of forty-eight hours the patient had a chill, the temperature rose to 103°, and the lochia were offensive. The uterus was then freely washed out with

creolin in hot water, and the subsequent convalescence was satisfactory. It is not unlikely in this case that the condition was one of great stenosis and not complete atresia, but no evidence of an opening was discovered.

Albuminuric Retinitis of Pregnant Women.—Dr. Silex.—Ophthalmoscopic and post-mortem examinations of albuminuric retinitis in pregnant women furnish no clew to the cause of this disease. It is usually associated with a morbid change of the kidneys, but the origin of this nephritis is a mystery. Experience shows that among three thousand pregnant women one is affected with albuminuric retinitis.

The course of the renal lesion in pregnant women is subacute, when the mischief makes its appearance in the second half of the pregnancy: but is, on the contrary, acute when it does not appear until toward the end. In some cases possibly a chronic nephritis existed previously, which assumes an acute form under the influence of the pregnancy.

This retinitis may be completely cured, in case the pregnancy is interrupted; but when the latter runs its normal course, sight is frequently partially, and sometimes entirely, lost. In thirty-five women suffering from this affection the visual acuity after confinement was one-half, one-third, one-fifth, one-eighteenth, while in six others it was only one one-hundredth.

When the pregnancy is accompanied by grave hemorrhages it is necessary to induce premature confinement. Of two women affected with retinitis accompanied by hemorrhages, in which premature confinement was not resorted to, one lost her sight in one eye and the other became totally blind. There should, therefore, be no hesitation in applying this measure, more particularly if ophthalmoscopic examination shows that extensive lesions of the vessels exist.

After extirpation of the fetus the mother should be treated by warm baths, derivatives over the intestinal tract, and administration of diuretics.

The administration of the indicated homeopathic remedy in these cases precludes the necessity of inducing premature labor and permits of the normal conclusion of pregnancy.

Gynecological Etchings.

Vaginal Injections.—When using hot water vaginal injections, the patient should lie on the back, with hips elevated.

Puerperal Convulsions.—In puerperal convulsions, when the spasms are apparently under control, look out for a return of the spasms if the pupil remain contracted.

Drugs by the Rectum or Vagina.—Drugs by the rectum or vagina should be given in three times the dose by the mouth. Be cautious about giving atropia to flaxen-haired, light-complexioned, nervous women. And remember that children are especially susceptible to the narcotic action of opium and its alkaloids.

Tubal Pregnancy.—M. Malherbe presented the uterine appendages of a young woman of thirty-four years of age, who was admitted to the hospital with all the symptoms of strangulated hernia. She had an inguinal tumor, which when opened was found to be composed of liquid blood and a clot, which was traced into the abdomen and proven to have come from a rupture of one of the tubes. After cleansing the abdominal cavity the appendages were removed, and it was found that she had a tubal pregnancy. The case is of interest as showing the possibility of error in diagnosis.

Fatal Metrorrhagia.—Dr. Resnikoff.—A girl, aged fifteen, with no hereditary history. Diffuse ecchymoses and petechiæ appeared for eighteen months; and then bad attacks of epistaxis took place and continued for several months till the period was first established. Clots were discharged for a week. For three months the epistaxis ceased, and at the end of that time recurred. The second period was seen nine months after the first, and proved fatal. For the first week the show was slight; during the second clots were passed and symptoms of acute anæmia set in. Notwithstanding the application of hemostatics, the patient died of the hemorrhage on the nineteenth day.

An Epidemic of Vulvitis.—MM. Weill and Bergeon (*La Médecine Mod.*) report an epidemic of vulvitis in young girls in a

hospital ward at Lyons. There was nothing to explain its origin, for it was scattered irregularly among occupants of various beds. The mode of its origin was, however, rendered clear by a fresh outbreak following the admission of a typhoid fever patient. The contagion was spread by means of a thermometer which the nurse was in the habit of introducing into the anus of patients. The temperature was taken before and after each bath,—*i. e.*, sixteen times,—and therefore the gonococcus was deposited sixteen times and became a powerful contaminating agent. The thermometer was simply plunged in water carbolyzed 25 to 1000. The reporters caused the instrument to be cleansed in a thirty-three per cent. solution of hydrochloric acid, and the epidemic was promptly arrested. Three months later there was a recurrence, as a new nurse began to take temperatures and again employ the old 25 to 1000 carbolyzed solution. Contamination was conveyed by the part of the thermometer in contact with the vulva. Inflammation of the anus was in no instance caused.

Causation of Sterility.—Dr. Ashby.—The adjustment of the tube and ovary during ovulation is effected in the human female by the most delicate mechanical arrangement, and may be defeated by trivial mechanical interferences.

In animals that habitually have multiple pregnancies a more perfect mechanical provision is made for the reception of the ovum by the tube. The number of ova impregnated seems to bear a close relation to the perfection of the arrangement which is provided for their passage into the tube. Thus in the bird will be found the most perfect type of mechanical adjustment, in women the most intricate and difficult.

The adjustment of the pavilion of the tube to the ovary may be set aside by the most trivial vices of structure and disease, resulting in absolute or relative sterility.

Sterility is due to minor diseases of tubes and ovaries to a greater extent than has been recognized. In an investigation of the etiology of this condition this fact should be considered in connection with an investigation of other causative influences.

The highest aim of surgery is to restore, and not to destroy, function. In the treatment of minor forms of ovarian and tubal disease this fact should be born in mind. Organs should not be

sacrificed to the rule of expediency, but should be preserved in deference to a law of genuine conservatism.

Absence of Vagina.—Dr. Max Simon.—The patient was twenty-nine years of age, and had been married six months. Her husband seems not to have been aware that the vulva was closed, but the meatus urinarius was made to supply the place of the vagina. The family doctor had expressed his belief that the hymen was tight, and required incision. The period had been missed twice, so that pregnancy was suspected. On examination, the meatus was found dilated, admitting the index finger; the perineum began immediately behind it. On recto-vesical exploration under chloroform, a small uterus and a distinct pair of ovaries and tubes could be felt. There was no indication of a vagina. An endeavor to dissect up a canal to reach the uterus failed to get to the cervix, owing to the close connection of the bladder and rectum. The artificial vagina soon closed in spite of dilatation. On careful interrogation, the patient admitted that she had never seen "show," but that ever since her nineteenth year severe colicky pains occurred every four or five weeks. Her husband had informed her that those pains were menstruation. The symptoms have grown worse, and removal of the ovaries will probably be performed.

The Local Treatment of Vaginismus, Dr. Thomas More Madden says, may be successfully carried out by such forcible dilatation of the vulvo-vaginal passage as to effectually overcome the abnormal contractility of the parts, and also at the same time produce thorough stretching of the affected nerve fibrillæ. For this purpose, in the first place, the patient, being duly prepared by the usual syringing and other antiseptic precautions for the vaginal operation, and her rectum and bladder evacuated, is to be etherized and placed on a suitable couch or table in the ordinary left lateral semi-prone position. Secondly, a large-sized bivalve vaginal speculum is to be introduced, and the blades then extended to their fullest extent. Thirdly, a tampon of antiseptic cotton or wood wool, saturated in boracic glycerine, is to be passed in through the speculum, so as to fill its caliber from the vulva to the roof of the vaginal vault. Fourthly, the speculum, still widely expanded, is to be forcibly withdrawn, for the purpose

of overcoming the contractility of the parts, and thoroughly stretching, or even slightly rupturing, the affected nerve fibers. In so doing some little abrasion of the vaginal walls may possibly be occasioned. But any hemorrhage therefrom will be sufficiently controlled by the tampon, on which counterpressure is to be made during removal of the speculum, so as to leave the included plug behind it in the vagina, where it must be left for at least twenty-four hours, and then at the same intervals replaced by similar antiseptic tampons, which must be employed for the next week to maintain the patency of the passage. Immediately after the removal of these tampons on each occasion the vagina should, of course, be thoroughly washed out with some antiseptic injection. Finally, if at the end of a week after this first dilatation any trace of vaginismus or spasmodic contraction should still remain, then the same procedure may be again repeated, after which it will probably be found that the passage has regained its normal sensibility and capacity. In some exceptional instances that curative result may not be thus obtainable, and in such cases it may become necessary to resort to one or other of those various methods, such as the incision of any specially hyperæsthetic tissues in the vaginal or vulvar area, or else to some of the recent modifications of Sims' or Emmet's operation for vaginismus. These procedures, however, will comparatively seldom be found essential by gynecologists who adopt the simple and generally effectual plan of treatment described.

Gonorrhea in Little Girls.—Dr. John Lovett Morse (Arch. Ped.) reports five cases of vulvo-vaginitis observed at the West End Nursery this winter. The presence of the gonococcus was demonstrated in all. No non-specific cases were met with during this period.

The occurrence of so many cases in so short a time goes to show that gonorrhea is certainly not uncommon in children, and the fact that no non-specific cases were met with would seem to prove that vulvo-vaginitis in children is in the great majority of cases of gonorrheal origin. They also show the difficulty, or even impossibility, of obtaining a history of the infection in many cases, and hence the importance of bacteriological examination of the discharge in every case. In this way alone can a positive

diagnosis be made. It is to be noted also that the urethra was usually involved and that the subjective symptoms were largely due to this. The external irritation was not, as a rule, very marked, and was easily controlled. The vaginal inflammation, however, was only overcome after some time and trouble, but gave rise to no symptoms other than the continuance of a slight discharge.

Hysterectomy Followed by Insanity.—Dr. Macpherson Lawrie.—A. B., aged forty, consulted me at the beginning of 1893 on account of troublesome persistent pelvic pain, situated principally in the back and right side. Her general health was undermined by more or less constant suffering.

In September the abdomen was opened in the usual way. The uterus was found pushed forward and upward by a large tumor attached by a broad base to its posterior surface, and practically occupying the whole of the pelvic cavity. Another swelling was about the size of an orange, and growing from the right side of the fundus. The abdominal wound was enlarged for some distance above the umbilicus, a strong pair of vulsellum forceps was attached to the most prominent part of the pelvic tumor, and after a little manipulation the whole mass was brought to the surface. The wire of the *serre-neud* was passed round the lower part of the cervix so as to include both tumors and the ovaries as well as the uterus. These structures were cut away from the stump, which was transfixed and trimmed and brought down to the lower angle of the wound. The parietal peritoneum was very carefully stitched to the peritoneal covering of the stump all round and the abdominal wound closed.

The wound healed rapidly without any complication, and the patient was practically well in two months, and able to resume her former pursuits. She continued in excellent health until May, 1894, about nine months afterward, when symptoms of acute mania developed, to which she succumbed in the course of four weeks.

The special interest in this case is the occurrence of mental disturbance following the operation. She was of a highly nervous temperament, but there was no clear history of any hereditary taint so far as I was able to learn.

Early Diagnosis of Uterine Cancer—Dr. Ernest Herman, in an address before the branch of the British Medical Association, lays stress upon the importance of an early diagnosis of cancer of the cervix uteri, for the reason that secondary growths occur later and less often with cancer of the uterus than with any other part of the body, and if it is removed there is a better prospect of freedom from recurrence than in any other form of the disease. This disease occurs chiefly toward the end of the child-bearing period, but it has been seen in childhood and in extreme old age, and therefore the patient's age should not influence the diagnosis. A tendency to cancer is sometimes hereditary, but this should not have the slightest weight, as only a very small proportion of patients inherit the disease.

The first symptoms of cancer are usually hemorrhage and leucorrhea; pain and wasting come later. The early diagnosis is so important, says Dr. Herman, that any unusual hemorrhage or discharge in a woman who has had children is a reason for vaginal examinations, for it may be the first symptom of cancer, and the nature of this disease cannot be determined without local examination. In considering the local signs, the features which distinguish cancer in any part of the body must be taken into consideration.

When cancer begins as an outgrowth from the surface, it may look like a growth of warts or papillæ, or granulations on the vaginal portion, and the surface feels uneven or even rough. It can be detected by an angry, livid red spot, the surface of which is at first quite smooth. This angry color depends upon the vascularity caused by the new growth and upon its tendency to break down, which leads to minute hemorrhages into the growth before the breaking down is extensive enough to make a breach of the surface. The livid surface of a cancer spot bleeds on being rubbed, so that a smooth, dark red spot, bleeding on contact, is very suspicious. This is the earliest stage of cancer; and if there is a nodule that can be felt, the suspicion is still stronger. If the cancer has so advanced as to form a growth like a mushroom or a cauliflower, the diagnosis can scarcely be doubtful.

With regard to microscopical diagnosis, Dr. Herman thinks

that the value of the microscope has been overestimated, and that to rely upon it may lead to many mistakes. It may now and then, he says, reveal cancer in a doubtful case, but negative microscopical evidence should never be trusted. The characters seen with the naked eye and the behavior of the growth should always be taken into account as well as its histiology, and if the two conflict, the behavior is the more trustworthy. If the case is a doubtful one, behavior of the suspicious part under treatment is the best test. One or two applications of strong carbolic acid will improve the local condition, and the diseased part will cease to bleed on contact. If the disease is cancer, these applications will stimulate its growth and the local changes will be more pronounced after such treatment.

Pedology.

Complicated Case.—The development of whooping-cough, chicken-pox, and measles in a child at the same time is reported.

Observation of Children.—Dr. Deschere.—Try to observe the child while sleeping and manner of awakening, but never wake up a child.

Diagnostic Modifications.—Professor Deschere.—When upper third of face is modified in expression, it means affections of brain; the middle third, affections of chest; the lower third, affections of abdominal viscera.

Examination of Infants.—A physician in every case of labor should make it his duty to carefully examine the genital organs and anus of the child to see if they are normal. A little care at this time may save the physician chagrin later, when an abnormal condition may be discovered by a competing physician and not be favorable to the accoucheur.

Lingual Traction.—Dr. Laborde, The Week.—My opinion as to the superiority of lingual traction over artificial respiration is based not only on clinical experience, but also on numerous physiological experiments. As a matter of fact, if artificial res-

piration be practiced under the best possible conditions, that is to say, with the use of bellows, a mechanical effect is produced, it is true, by blowing air into the lungs, but the respiratory reflex is not restored. On the contrary, by stimulation of the upper laryngeal nerve, or by traction on the tongue, which amounts to the same thing, the reflex of respiratory action is established, which is conclusive evidence of the superiority of rhythmical traction on the tongue, as compared with the procedures usually employed.

Young Children's Eyes.—Professor Preyer says that an infant a few days old can't see, but believes that a sensibility to light exists from the moment of birth, and that the sensibility to light is more alive to the sense of feeling than to that of sight. An infant from the first closes its eyes when exposed to a strong light. With regard to actual sight, as denoted by the fixing of the eyes on objects, Preyer believes that it is usually about the twentieth day. Different authorities, however, have different views on this point. Many believe that it is four weeks before the sense of sight comes into full operation. Others believe that an infant can see at the age of ten days.

Infantile Scurvy.—Dr. F. C. Rogers reports two cases of young infants with marked evidences of scurvy. Both of the children had lived entirely on sterilized cow's milk, mixed with water, and artificially prepared foods. The following diagnostic marks are quoted from Barlow :

(1) Predominance of lower limb affection, in which there is immobility going on to pseudo-paralysis, excessive tenderness, general swelling of the lower limbs, skin shiny and tense, but seldom pitting and not characterized by undue local heat, on subsidence revealing a deep thickening of the shafts, also liability to fracture near the epiphysis.

(2) Swelling of the gums, varying from definite sponginess down to a vanishing point of minute, transient ecchymosis. These constitute the chief diagnostic differentia between infantile scurvy and rickets, properly so-called. But to these must be added, as the most important diagnostic of all :

(3) Definite and rapid amelioration by antiscorbutic regimen.

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THE TREATMENT OF FACE PRESENTATIONS.

BY

I. L. DANFORTH, M. D.

THE course of labor in a presentation of the face, with the chin anterior, may present no unusual features, and terminate spontaneously, with no more difficulty or delay than would attend the delivery of an ordinary occipito-anterior presentation. It is generally conceded, however, that a face presentation, with the chin directed backward toward either sacro-iliac sychondrosis, if permitted to enter the true pelvis in that position, is liable to result in impaction of the head, exhaustion of the mother, ineffectual attempts at delivery, and ultimate death of the child.

The relation of the diameters of the fetal head to the pelvic cavity are not incompatible with a natural delivery in face presentations, whether the chin be directed forward or backward. The chin in these cases, it will be remem-

bered, is the analogue of the occiput in vertex presentations, and descends into the cavity of the true pelvis in obedience to the same forces which influence descent of the occiput in normal cases. In mento-anterior presentations, the labor having begun under favorable conditions, with engagement of the face in the true pelvis, an intact bag of waters and good pains, the probability is that the chin will descend along the anterior inclined plane and rotate to the front without great difficulty or delay; but exceptions to this rule are often observed. As a result of inefficient uterine contractions, or too close an adaptation between the head and the pelvic canal, the head not becoming fully extended, delay and often actual suspension of all expulsive effort occurs.

In mento-posterior presentations the normal mechanism involves the descent of the chin along the posterior inclined plane until the utmost degree of head extension is reached. Then, under the combined influence of uterine action and the resistance afforded by the pelvic floor, the chin, following the same direction that the occiput does in occipito-posterior presentations, passes upward and forward along the anterior inclined plane, until it reaches a point under the pelvic arch, when it emerges, and the delivery terminates as if it had been originally a mento-anterior presentation. This, I repeat, is the normal mechanism, and when the facial diameters of the head are compared with those of the pelvic cavity, through which it must pass, there is found to be no real mechanical obstacle to the completion of the delivery.

Why is it, then, that in mento-posterior face cases, and sometimes in mento-anterior presentations, labor is so often attended by great delay, danger, and difficulty, often causing the death of the child, and too frequently that of the mother? This question I shall endeavor to answer. As has been stated, in mento-anterior presentations the advancing chin has to travel only a short distance down the

anterior inclined plane before it reaches a point of resistance which sends it forward under the pubic arch, and the labor is completed without much unusual delay. It is only when uterine action is weak, the engagement of the face imperfect, and head extension incomplete, with partial dilatation of the cervix, that mento-anterior presentations become tedious to the mother and dangerous to the child by unwonted pressure upon the vessels of the neck. In mento-anterior presentations the necessity for anterior rotation renders the prognosis entirely different. The reason which Penrose gives for the difficulties met with in *occipito-posterior* presentations, when the occiput goes into the hollow of the sacrum, is just as applicable in face cases with the chin in the posterior part of the pelvis. Penrose says: "The depth of the bony pelvis, from the promontory of the sacrum to the point of the receded coccyx, is five inches, and if we add five inches more to these five inches, as the measure of the distended perineum, we find that the distance which the occiput has to travel from the promontory of the sacrum to the anterior edge of the distended perineum is ten inches, more or less." With the face in the pelvic cavity, chin to the right posterior inclined plane, and as low down as it can be driven, it is generally not sufficiently low for the chin to receive the entire influence of the driving force. The head *en masse* occupies the true pelvis by the time the chin is resting on the pelvic floor, and confronts the posterior lateral wall of the pelvis. As a result, the expelling power is in part lost, there being a misdirection of driving force, the latter being expended more or less directly against the posterior inclined planes of the pelvic wall. But putting aside the obstacles, which are not present in all cases to the same degree, the distance which the chin, as the most advanced point on the face, must travel before it can reach a diagonal point under the pubic arch, is certainly greater than the greatest length of the neck of the child will permit. By the length of the

neck of the child is meant the distance from the top of the sternum to the tip of the chin, when the latter is extended to the utmost. This distance is not more than three inches in a thin child with a long neck. When the highest degree of extension has been reached, if advance takes place it must be followed by the whole head and a part of the neck. This is in reality first, the fronto-mental diameter and then the trachelo-bregmatic diameter, each measure $3\frac{1}{2}$ inches; back of this is the occipito-bregmatic diameter ($3\frac{1}{2}$ inches); added to the latter is the thickness of the neck and the base of the skull, which makes a mass fully five inches thick, crowded into a pelvis unable to contain it except by dangerous compression. A child with a small head, fully extended, in the pelvis of a primipara, with a perfect perineal floor, and propulsive force of powerful proportions may be delivered spontaneously, but under less perfect conditions this result is rarely to be hoped for, and never to be relied upon. In addition to the difficulties which proceed from the presentation itself there are other complicating conditions which are more frequently associated with face births than with others—viz., a small pelvis, a large child, unnatural obliquity of the uterus with misdirection of the propelling force, and the tendency to prolapse of the small parts. In view of all these circumstances it would seem, therefore, as if the tendency in face cases was toward dystocia. Still I cannot class myself among those who would consider a face birth as abnormal and of itself a serious complication of labor, nor can I agree with those who maintain that face births should always be classed among normal labors. Probably the truth lies between the two statements. I shall endeavor to point out the cases which may be relied upon to terminate naturally, even though a little extra patience be demanded, and those which require prompt and skillful intervention at an early period of labor, in order to prevent worse conditions than those present at the moment, such as an impacted, immov-

able mento-posterior face in the body of a mother already worn out by long suffering and intense physical effort.

When the face presents at the superior strait it is especially important that the diagnosis of the exact presentation should be made out early. Spontaneous rectification of the face presentation sometimes occurs as a result of the involuntary movements of the child, aided by the contractions of the uterus, which naturally tend to produce the most favorable fetal position. In imitation of nature's methods, if the diagnosis is made early, a tentative effort should be made to convert the presentation into the more favorable presentation of the occiput. This may be done by turning the woman on the side toward which the abdomen of the child is directed, in the hope that the breech will fall to the most dependent part of the uterine cavity, thus changing the direction of the spinal column and altering the direction of the driving force so that the short arm of the head lever will descend and thus depress the occiput, thereby changing naturally a presentation of the face, with the chin lowest, into a normal occipito-anterior presentation.

If the cervix is patulous and the abdominal wall not too thick, conjoined manipulation with two fingers of one hand inside the cervix, and the other hand over the hypogastrium, the chin of the child may be pushed upward and the occiput may be brought down. In case this manipulation is successful the membranes may be ruptured, and by continuation of the pressure the occiput may be made to assume its natural position in the true pelvis. The method of Schatz of correcting primary facial presentations may be employed when the conditions are favorable for it. If the presentation is mento-anterior and the patient has given birth previously to living children, with a history of normal labor, the necessity for the conversion of the face presentation into one of the vertex is not so imperative; in fact, mento-anterior presentations, as has already been stated,

terminate favorably in the majority of cases, and with not much greater difficulty than is met with in the corresponding occipital presentation.

In all face presentations, whether the chin be anterior or posterior, it should be a cardinal rule to preserve the bag of waters as long as possible. Premature rupture of the membranes is exceedingly unfortunate in face cases, as the dilatation of the cervix goes on much more slowly with the face as the dilating medium than when the vertex is employed for this purpose.

Sometimes the head will descend to the lower portion of the true pelvis, and delay will occur at the point where the chin meets the resistance of the anterior inclined plane. This occurs in cases where the head is large, and sometimes, also, when the pains are weak and inefficient. Sometimes the pains are good in the beginning, but the mother becomes exhausted before rotation is accomplished. In such cases, an artificial point of resistance may be afforded by placing two fingers of the operator's hand upon the posterior cheek or side of the chin, keeping the hand there during the pains, and pressing forward in the direction which the chin should take in its passage through the pelvis. One blade of the forceps will answer a good purpose. Penrose especially recommends the use of the single blade of the forceps, in order to afford a point of resistance over which the chin will rotate.

In these more favorable face cases the general indication should be to let nature accomplish her work without interference; still, if one possesses a clear idea of what it is that nature is trying to do, skillfully directed attempts at rectification of the presentation, by substituting the vertex for the chin, is legitimate, and often successful. There is one objection to the performance of cephalic version when the head is at the pelvic brim in mento-anterior presentations which should be mentioned. Bringing down the occipito here means the conversion of the face presentation into a

presentation of the occiput posterior, which is very undesirable, and not an improvement on the original presentation. During the manipulation which has for its object the substitution of the occiput for the chin, an effort should be made at the same time to rotate the occiput toward the anterior part of the pelvis, thus converting it into a right occipito-anterior presentation. On the other hand, when a face chin anterior fails to engage at the superior strait, I should, for the reason already given, viz., the undesirability of the resulting occipito-posterior presentation, decide in favor of podalic version, after full dilatation of the cervix had been secured. When the conditions are favorable, and the chin *anterior* at the superior strait, it is better to let the case alone than to attempt intervention. It is when the chin is directed posterior that cephalic version is especially applicable. Here the pushing up of the chin and the descent of the occiput results in an occipito-anterior presentation, which, of course, is the most favorable presentation that we can have.

The older writers in obstetrics, with almost one accord, advise non-interference in *all* face presentations, without regard to the position of the chin. As early as 1685 Portal wrote with reference to face cases: "We may look upon them as not receding much from a natural birth, and to take it for a general rule that if we find the face foremost to have patience, and not to be too busy with our fingers, unless it be to anoint the passage with fresh butter, to render it more slippery, and consequently more easy for the child." Smelley ("Midwifery," 1754-1783) describes the difficulties and dangers of face presentations, though he reports numerous cases in which delivery occurred without instrumental assistance.

Notwithstanding the remarkable statement made by Smelley, viz.: "When the face presents resting upon the upper part of the pelvis, the head ought to be pushed up to the fundus uteri, the child turned and brought by the

feet," in another place, commenting upon his management of a case, he frankly says: "The fault was in not waiting longer, for I have had many cases since where, waiting patiently, the head has advanced and been delivered with the pains or with the forceps." Again he says: "No doubt it would be a great advantage in all cases when the face or forehead presents if we could raise the head, so as to alter the bad position and move it." Baudelocque (1791) recommended the conversion of face presentations into vertex presentations, and his method consisted in an attempt to make such a change as soon as two fingers could be introduced into the os uteri.

At the beginning of the present century, forceps, version, and the displacement of the occiput by the hand or the vectis, were frequently resorted to for the improvement of the face presentations, but Mme. Lachapelle (1769-1821) and Paul Du Bois argued strenuously against the above practice, and the latter maintained that face presentations were even favorable to childbirth, and in and of themselves by no means demanded operative interference. Again, at the middle of the present century, the conversion of a face into an occipital presentation was almost unknown among obstetricians. Blundell ("Principles and Practice of Midwifery," 1842) says that, in occasional and exceptional instances, turning may be resorted to advantageously. He says: "As an exception to a general rule, this method of delivery may be proper enough; but observe, as a general rule of practice in those cases, with the whole weight of authority which I possess, I condemn it. Do it ninety-nine times, and successfully, and I condemn it still, because you are meddling; because you are cramming your hand into the uterus without any sufficient cause; because you are, as it were, doing your best to tear the vagina; because ninety-nine operations, undeservedly successful, may lead to the hundredth and the destruction of your patient.

"In presentations of the face the stoical rule will apply.

A rule which might be whispered into the ear at all times when you are at the bed-side—*naturam sequere*—delivery is a natural process. Give, therefore, a fair trial to the natural efforts. When you find a face case, frequently—nay, generally—you have little to do. You need not send for another practitioner; you need not allow your mind to get into a state of perturbation. You have only to sit quietly at the bed-side, to support the confidence of the woman, to let the uterus act, to protect the perineum, to open your hands and receive the child which nature deposits in them."

It may be interesting to state in passing that Blundell was the author of the oft-quoted sentence: "Meddlesome midwifery is bad," and no truer aphorism was ever promulgated. Still, interference, guided by intelligence and a clear comprehension of a result to be obtained, under such aseptic and antiseptic precautions as modern midwifery is able to afford, the force of Blundell's aphorism is very much modified.

I might quote numerous authors among the classical writers of the last half century, and I think the consensus of opinion would be against intervention, unless nature was found to be absolutely inadequate. With these writers, version or the forceps were the only resources. In advising early intervention in mento-posterior presentations, I think the statistics of modern midwifery, and the opinions of those who have had most experience on modern lines, will bear me out in the assertion that early intervention is exceedingly helpful to the child, and also to the mother. Face cases undoubtedly result in very much greater mortality to the child than vertex presentations. In 102 cases of face presentation in Guy Hospital lying-in department, in $7\frac{2}{10}$ per cent. the children were stillborn; and if in these 102 cases we include 14 original brow presentations, the number of children stillborn was $8\frac{1}{10}$ per cent. In vertex presentations during the same time the proportion of children stillborn was only $2\frac{1}{10}$ per cent. (Gallabin.) Winkel

says that one child in every nine or ten is stillborn, and the mortality to the mother is six per cent.

Lusk says with regard to the difficulties of labor in face presentations: "Though spontaneous delivery is the rule in face presentations, the dangers to both mother and child are considerably greater than in vertex presentations. The causes of the less favorable prognosis are to be looked for in the increased peripheral head measurements, which engage successively in the different planes of the obstetrical canal, and consequently on the increased reciprocal pressure between the head and the soft parts, and partly, also, on the compression of the veins of the neck by the anterior wall of the pelvis. Though the average length of labor does not much exceed that of normal presentations, the duration is more generally affected by minor details, such as weak pains, contracted pelvis, and rigidity of the obstetric canal. At the same time, the prolongation of labor in these cases is attended by more disastrous consequences, and calls more frequently for the resources of art to complete delivery."

Nearly all writers and teachers at the present time look with great dissatisfaction upon mento-posterior presentations, owing to the tendency to impaction of the head in the true pelvis, to exhaustion of the mother, to prolonging the pressure on the blood vessels of the neck of the child with resulting asphyxia, and to the great dangers which attend efforts to deliver by means of the forceps. It is unquestionably true that face presentations, chin posterior, do sometimes terminate without much greater difficulty than occipito-posterior presentations. If, in such a case, we should find that the woman had borne children previously with moderate ease, that the cervix was soft and well-dilated, the pelvic cavity capacious, and the general condition favorable to speedy delivery, it would certainly be safe to allow the case to go on without interference; but the instances where such a favorable termination is probable

are very infrequent as compared with those in which the dangers described may be expected. If, therefore, it could be shown that early intervention can be accomplished without increasing the danger to the mother, and fetal lives may thereby be saved, what objection can there be to the adoption of such a procedure?

The special object in this paper is to recommend early intervention in cases where the chin is primarily directed to the posterior part of the pelvis, and also to point out the advantages of certain procedures which may be employed when the head has already engaged and become impacted in the pelvic cavity and nature is inadequate to the delivery. If the method of Schatz, which is exclusively one of external maneuvers, fails, or the method of Baudelocque, or of Clark and Hodge, which is essentially the same, which consists in the introduction of two fingers within the cervix and acting alternately upon opposite ends of the head lever, first pushing up the chin, and secondly by hooking the fingers over the occiput—I repeat, if we employ these various maneuvers and they prove inadequate, we may employ Partridge's method, which consists in the passage of the whole hand into the cavity of the vagina, two fingers being passed on through the cervix into the cavity of the uterus. The palms of the fingers are passed over the occiput, and by pressing them firmly against it, traction downward is made, with the result that flexion of the head almost immediately occurs. If imperfect at first, by continued effort the flexion soon becomes complete. This maneuver is aided by the external hand, which pushes the occiput downward into the pelvic cavity by acting directly through the abdominal walls. The conditions especially favorable to the operation are an os nearly or quite dilated, a face not engaged in or at least capable of being readily lifted from the pelvic brim, an unruptured bag of waters, and a capacious vagina. If the waters have only partly drained away, and the head is movable and the uterus not

retracted, the operation may still be performed without unusual difficulty.

A case in which the method of Partridge was eminently successful was seen in consultation, a year and a half ago, with Professor T. F. Allen. The patient was a multipara, I should think, about thirty-five years of age. She had been in labor fully twelve hours, and perhaps longer. The cervix was dilated nearly to the full extent; the head of the child rested easily at the pelvic brim, face presenting, chin posterior, the waters having previously drained away. I recommended anæsthetizing the patient and the introduction of the hand into the vagina, hooking two fingers over the occiput to draw it down. This, I thought, could easily be done, and if necessary the forceps could be employed to bring the head into the cavity of the pelvis. This advice was followed; the head was flexed, and, by internal pressure, the vertex were made to descend into the cavity of the pelvis. Forceps were then applied, the head drawn downward, and the patient was delivered without difficulty.

Another case was that of a primipara, aged twenty-seven. Membranes ruptured, and liquor amnii discharged twelve hours before the occurrence of pains. The diagnosis of a face presentation was made, and the position was determined as soon as two fingers could be introduced into the os; the chin was right posterior, brow anterior and to the left; pains were short, occurring at long intervals. As soon as the cervix was fully dilated chloroform was administered and my right hand passed into the vagina. By conjoined manipulation the child's head was flexed on its body and a left anterior occiput position effected. The palmar surfaces of two fingers were passed over the occiput and the change in the presentation was easily effected by slight traction downward. The external hand assisted in the maneuver. The case was then left to nature; pains, however, were inefficient and infrequent, and after three hours I found that

the face presentation had recurred. Chloroform was again administered, the head flexed and forceps applied, and labor terminated naturally in one hour.

Case III was seen in consultation with Dr. Hamlin, of this city. Patient was a multipara, a stout Irish woman. She had been in labor about twelve hours. The presenting part was very high up, and notwithstanding most violent pains, the child had failed to enter the pelvic inlet. The patient was placed under chloroform, and the hand passed into the vagina and two fingers through the cervix. It was then found that there was a face presentation, head completely extended, chin as far from the sternum as possible, and the occiput jammed back against the nape of the neck and the spinal column. The waters had drained away early, and the uterus was well retracted on the body of the child. In this case, notwithstanding complete relaxation by chloroform, I was unable to induce flexion of the head. The uterus was contracted at the internal os or at the situation of the so-called Bandle's ring, and at that point grasped firmly the body of the child and prevented the dislodgement of the head. In this case I was obliged to perform podalic version, and finally succeeded, though with the loss of the child's life.

In view of the ease with which flexion of the head can be produced in mento-posterior presentations of the face, furthermore on account of the great dangers which almost invariably result when the labor is allowed to progress with the chin in this unfavorable position, I think it justifiable to lay down the rule that these cases should never be left to nature, but should be subjected as speedily as possible to manual flexion of the head. After this has been accomplished the further progress of the case will depend upon the existence of uterine contractions and their character, and upon the exigencies of the case in other respects. If pains are good and powerful, the case may be left entirely to nature. If there is a tendency to recurrence of the un-

favorable presentation, forceps may be applied to draw the head into the pelvic cavity, and then the case may be terminated at once or left to nature as soon as permanency of the head in its improved position has been established. In neglected cases or those in which the water has drained away early, and in which the uterus is retracted around the body of the child, and flexion is impossible or contra-indicated, version should be the operation of election in all cases, whether the chin be anterior or posterior. If version be considered impracticable for any reason, the application of the forceps to the face at the pelvic inlet should be employed; but in such cases the chin should be rotated by the hand to the front part of the pelvis before the forceps are introduced. Here an axis-traction instrument is especially useful. In those cases which are not seen until the head has become impacted in the pelvic cavity, the treatment will depend upon the conditions present in each individual case. For instance, if uterine contractions are good and the mother's strength favorable, the patient should be placed on the side toward which the chin is directed; one blade of the forceps or vectis may be placed under the posterior cheek, or the hand of the operator may be employed for the purpose of producing anterior rotation. The hand is really superior to any instrument, and its efficacy is due to the fact that it supplies an artificial pelvic floor at the point desired, and over this the chin will glide toward the front if pains are good. The application of the forceps as a rotator is not advised except in cases where the impaction is not absolute and where the delay is due simply to imperfect uterine contraction. Here the forceps may be applied according to the usual rules, the traction being made in accordance with the usual principles. In making any special attempts at rotation we will often find that at the last moment, as in occipito-posterior presentations, the chin will rotate to the front spontaneously. Instances have been recorded where with a capacious pel-

vis, operation has resulted in the delivery of the child with the chin over the perineum, but in such cases the conditions must be especially favorable for its accomplishment.

Two interesting and remarkable cases have recently been reported in obstetrical literature, in which, after prolonged impaction of the head in the pelvic cavity with the chin posterior, delivery was effected by lifting the head of the child out of the pelvic cavity and inducing flexion of the head.

Dr. Malcolm McLean and Dr. Marx have each reported a case within the year when after fruitless attempts with the forceps in the hands of a skillful obstetrician, successful delivery followed deep anæsthesia of the patient and the introduction of the hand into the pelvis, pushing the head to the brim and then bringing down the occiput.

TRIPLETS, WITH PLACENTA PRÆVIA.

BY

J. K. READER, M. D.

CASE I. Mrs. M. E. McC., æt. thirty-two, of Scotch-Irish descent, a veritable giantess, and the mother of five pair of twins, all alive and healthy, called me on July 7, 1884, and, referring to her history and condition, said she felt sure she would in twomonths and a half be delivered of triplets.

I made a casual examination, and found an immense abdominal tumor, and too *low down* and pendulous.

Though I could detect no sign of ascites, I felt so satisfied, I exhibited merc. cor., and came near going away without securing a sample of urine for analysis; but, on second thought, I took a sample, and lo! I found it not albuminous, and called again; but the woman was so

fleshy and the tumor so hard and tense, I could only exhibit pulsatilla, and hope for hydrorrhœa. But instead, was called up two nights later to check a severe hemorrhage, which yielded readily to medication. The patient complained of a terrible commotion in the bowels a few hours before the hemorrhage began, and said something seemed *pulled out* of each groin. And, sure enough, examination of tumor showed it as much too high and flattened as it formerly was too low and round, but equally tense and *unexamenable*. Left kali phos. and went home, still hoping for hydrorrhœa, which never came, but patient continued comfortable until her regular term, which began with an alarming hemorrhage, and I soon saw I had my first case of placenta prævia, and no consultant within thirty miles, and no railroad.

I thought rapidly, and so worked. First, forcing a male catheter through the membrane, I emptied the amniotic sac of about two gallons. The presentation was right; dilatation rapid, and in thirty minutes I delivered a large female child, perfect in every detail. But the removal of the clots did not produce the least uterine contraction, and the patient, placing her hands high up on her abdomen, said: "There's another, doctor."

What must I now do? Another fetus and no contractions! I rolled up my sleeve, anointed my hand and arm well with lard, and proceeding, found in the right hypogastrium a *body*, enclosed in membrane, just the size and shape of a well-trimmed ham, which came out with a resistance resembling *suction*, as if the ham bone were inclosed in an airtight tube; weight, about four pounds. No contraction yet, and again the patient said: "There's another, doctor."

Again I went in, and drew from the left hypogastrium an exact counterpart of the one just before delivered, and, *mirabile dictu!* the uterine contraction immediately set in, and the hemorrhage was no more.

Before I could get around to examination of *my find*, the neighbor women that were helping had divested the two of their membranes, and one woman declared she saw each one move, but I doubt that. But they were so near perfectly developed, and, being claimed for burial as dead children by the father, I did not push *my claim*; but the circumstances of the case, and the fact that the woman, though only thirty-two years old, made a good recovery and never menstruated again, leads me to the conclusion that there was one natural uterine, and a double tubal pregnancy, corrected, as I firmly believe, as far as such a thing could be corrected by the administration of pulsatilla, for in my twenty-five years of arduous *country* practice, I have never seen a wrong presentation where pulsatilla has been given.

THE FEMALE BLADDER DURING THE PUERPERUM.

BY

DR. L. D. WILSON.

A DISTINGUISHED master of the obstetric art, at whose professional feet I once sat, has said: "The longer I practice obstetrics the more I fear bad results, and am never easy about a case until the time has passed when *any possible* complications can arise." I think we all realize the justice of this, and in the hope that benefit may arise from a discussion of that very important organ, the urinary bladder, as affected by the puerperal state, and especially its inflammation or cystitis, the following is presented:

The bladder, lying as it does in close juxtaposition to the uterus, and having its vascular, nervous, and lymphatic supply intimately connected therewith, is affected by any

change in the latter, such as are due to pregnancy, both by disturbances in position and nutrition, both vascular and nervous. As the uterus enlarges and rises from the pelvis, it must first press upon the bladder, and later, from the close connection of the base of the bladder with the cervical portion of the uterus and the vagina, this portion is displaced. Moreover, the physiological congestion of the uterus, and the nerve irritation due to this, is transmitted through the sympathetic system to the bladder. As a result of all this, we have the bladder symptoms of pregnancy, so familiar to us all, consisting of frequent urination, painful urination, vesical tenesmus, etc., which may be aggravated by uterine displacements, cross positions of the fetus, hydrocephalus, or other malformations of the fetus.

At the time of delivery there may be injuries to the bladder or urethra due to mere pressure on the membranous structures too long continued in tedious labor, to pressure on a distended bladder, to injury by instruments or the hands of the accoucheur. Sloughing and fistula may follow the first accident, rupture and fistula either of the others. These accidents, however, are among the rarities of obstetric practice, and are becoming still less frequent as advances are made in systems of pelvic measurement and the use of forceps, and other means of assisting delivery. But there is a more common—it may be, too common—trouble following delivery—namely, cystitis due to infection of the urinary tract, or, perhaps, I should say cystitis, without specifying the cause, as under the trend of modern pathology all cystitis must be referred to an infection. This affection is shown by the literature of the subject to be both common and disastrous. Norris quotes from Schwarz that in eleven hundred deliveries, catarrh of the bladder was noted in 2.9 per cent., and of seven cases of cystitis 38.8 per cent. resulted fatally. This mortality of itself is sufficient to call for our best efforts to avoid the disease, if possible; but the distress and annoyance, to

both patient and doctor, furnish an additional incentive thereto.

Luteaud, in a recent number of the *Journal de Medicine de Paris*, in discussing cystitis, states as follows: "While in the male, cystitis nearly always arises from the condition of the prostate and the urethral canal, in the female it is often the result of accouchement or operative traumatism. There exist in a woman certain close relations between the bladder and organs of generation; the uterine cause replaces with her the prostatic cause in the male. I have said that operative traumatism is a frequent cause of cystitis. An insignificant cause is sufficient for this, since the application of a gauze tampon to the neck of the uterus may result in very painful vesical tenesmus." In other words, any injury to, or even irritation of, the uterus or other part of the genital tract, may be followed by cystitis. As bearing on this, a recent experience may be cited: Mrs. H., primipara, delivered after a rather slow but otherwise uneventful labor; a slight tear of the perineum, which was immediately repaired with a single stitch of sterilized silk, and other antiseptic precautions. Some three days after delivery there began an attack of cystitis, which resisted my best endeavors, until my attention was called to the condition of the tear by the complaints of the patient. I found that union had not taken place; there was marked inflammation at this point; the stitch was very tense and there was some pus. I removed the stitch, cleansed the part, and the cystitis promptly disappeared under the remedies before used.

But while the cystitis may arise from such causes, the vast majority of cases follow and are a result of the use of the catheter, used to relieve overdistention of the bladder after delivery; or, in other words, the catheter carries into the viscus germs which light up an attack of inflammation of the bladder. See "Skene on Diseases of Women," pp. 678-692, *et seq.* Further than this, Higbee, in *Homeo-*

pathic Journal of Obstetrics for January, states his belief that there is more or less blood poisoning in using the catheter. The germs may come from an unclean catheter or may be carried back from the meatus or urethra on a previously clean instrument. Possibly I may have had an exceptionally fortunate experience, but I find very few cases in which I believe it to be necessary to use the catheter after confinement. The free flow of urine during the first part of the delivery, the almost invariable discharge again when the delivery nears completion, together with the fact that after delivery the bladder has more room, and so can expand and hold more urine than before, have made me follow a waiting plan, with the result that urine is discharged without the use of a catheter, and, as a result of this, a similar absence of cystitis or even any vesical irritation. So much for the cause and prophylaxis of the disease. As to its course, symptoms, and treatment, I will leave for others who may follow, and who can speak from greater experience than I have enjoyed.

HOMEOPATHY AND THE DISEASES OF CHILDREN.*

BY

JAMES LOVE, M. D.

WHAT is there in reality more interesting than an infant? Nothing, since he possesses everything to interest us. In the first place, his weakness—for his weakness is really weak—which essentially distinguishes it from the weakness of women, one of the grandest known forces. It is distinguished equally from that of the aged, because

* An address delivered in Paris, on behalf of the Society for the Propagation of Homeopathy.

with the old man everything is over, while with the child all is to come. Now, the past carries with it all the long line of deceptions, and very often of misfortunes, while the future is accompanied nearly always with hope, and hope is almost always beautiful.

The infant is then the mark of general interest, and rightly so, because from that little being may come one day a great benefactor of humanity in all the ways that can bring blessing—sciences, art, philosophy, or politics. It is this idea which originated the definition which served as a title to a marvelous book by Professor Fonssagrives of Montpellier, "The Child is the Father of the Man."

So above everything we must take care of the child; we must put into movement for him all that devotion and science can offer, so as to arrive at the results that society demands—make of the child a man, and, I might add, not a useless one.

In virtue of this claim, I say, at the risk of being accused of boasting, there are not two remedies for the child. There is only one, and that one is homeopathy.

I will divide that which I have to say to you in two parts—one part general and one part special.

From the point of view of the treatment of children by homeopathy, the generalities may be summed up in a single word, convenience. In the eyes of many doctors this is very low ground; but this too much neglected convenience is of great value to my mind, and if, as I hope, there are among the ladies who do me the honor to listen to me, a majority of mothers, I will add that it is of much greater value for them. The mothers who practice homeopathy all tell you that it is a great happiness for them not to have to add to the sufferings and torments that the disease brings to their babies the disagreeables of allopathic treatment. Believe me, this is not an element to be disdained, even when it is only for the investigation which helps the diagnosis. It is not a matter of indifference to have the con-

fidence of one's little patients, instead of seeing them throw themselves from you the moment you appear in the room. I have had proof of this lately in a very pretty saying of a child. I was called in last year to the Avenue Montaigne, to a little girl of three years of age. The parents took me aside when I arrived and warned me that their child had a horror of doctors, and that if I would examine her I must make believe that I was a friend who had come by chance. I conformed to their wishes, and the interview passed without difficulty. I did not see the child again until I was called in a few days ago. On entering, I found her in the drawing room, and as she looked at me fixedly, I said, "You do not remember me?" Immediately she replied, "Yes, I remember you; your medicines were nothing but water," and our interview continued after the most cordial fashion. For her, my personality as a doctor was entirely in the fact that it was not accompanied by all the nauseous prescriptions of my predecessor.

More recently I was called in by a family who, at the reiterated request of many friends, decided to try homeopathy. It was for a child of five years of age who had taken cold. (One knows that even among those who do not believe in homeopathy in a general way there are those who believe in it for the throat and for colds.) The situation was grave for the parents who had the trial for the first time. They bore their part bravely, and showed themselves very courageous. To-day the child is cured and joy reigns in the house. But for my own part, the greatest happiness is less in the result itself than in the way in which it was obtained, and the mother, who, two years before, had nursed another of her children in pneumonia, which was treated by emetics and blisters, had no words in which to express her gratitude for the easy and comfortable manner in which the child was benefited.

When I told you that the generalities on homeopathy as to children were included in a single word, I was mistaken.

There is another which is not wanting in importance in the debate, that word is security. You have doubtless all read in this morning's papers the accident which has just happened to a doctor who, unhappily, was also a member of Parliament. A child whom he was attending died, and they blamed his prescription for having poisoned him. The case does not seem very clear to me, and as they say at the palace, it may be that politics had taken precedence of medicine. At any rate, it is not an isolated case. I will relate another example which took place in the family of old friends of my own. A child of five, who was attacked with intermittent fever, and attended by a hospital doctor, died, poisoned as a result of an error committed by one of the most celebrated chemists of Paris. The student who made up the prescription had dispensed suppositories of morphia instead of suppositories of sulphate of quinine, which had been prescribed. The same cannot be imputed to us; it is admitted, even by our detractors, that if our therapeutics are not useful, we can at least always take to ourselves the celebrated adage, "*Primo non nocere*." Convenience and security are, then, the two primary qualities which we cannot refuse to homeopathy; and, I repeat, that especially in connection with children, they are two factors which must not be despised.

I will now approach the second part of this lecture, and pass in review before you some of the diseases of childhood, and the results that we obtain in these diseases.

In taking the child from its earliest infancy, one of the most serious and most grave diseases is broncho-pneumonia, known commonly as inflammation of the lungs. My most complete and extended field of observation is my dispensary for children. There I see a great deal of broncho-pneumonia, as the conditions of life of these patients are essentially favorable to the development of this serious malady. The conditions of the treatment are also unique, and could not be more unfavorable.

While the little patients of the town are surrounded by an unprecedented luxury of precautions of every kind, at the dispensary the child is taken every morning from his bed and carried to my consulting room, in weather often very severe, as it is usually in winter that this disease is prevalent. These children are cured ; and, without having prepared any special statistics, I can say that in almost every case the result was most satisfactory. The same remedies apply equally to the adult as to the child—aconite, ipecac, and bryonia. In some special cases I have found the medicines indicated by Teste very effectual—pulsatilla, spongia, and chelidonium.

Everyone knows that in the first year infant mortality attains gigantic proportions, due most generally to gastrointestinal affections. There also we triumph, thanks to our therapeutic arsenal. Ipecac., arsenic, phosphoric acid, mercury, and particularly chamomilla, give us splendid results. It goes without saying that none of these remedies will succeed unless at the same time you order a diet exactly suited to the age of the child. *Puer totus in stomacho.* The first thing then is to correct the frequent errors of diet, which are generally the first cause of the disease. But this is not enough for the disease ; once there, diet without medicine is powerless. I will cite the following case : A child, two years of age, was brought to my dispensary after having been under treatment for three months at all the special hospitals. He had been suffering from diarrhea during all that time. Nothing that they had tried had succeeded, and according to the realistic expression of the mother, which I hope you will excuse my giving, every morning she found the child *baigné dans ses matières*. All the symptoms of this diarrhea corresponded exactly to that of merc. cor., otherwise called corrosive sublimate. I gave him the sixth dilution, five drops in 200 grams of water, four dessert spoonfuls a day. Four days later they brought the child to me ; the medicine was not finished but, the diarrhea was.

The child is now six years old, and there has been no return of the malady.

Certain children by a natural disposition of the larynx are subject to an affection which is not often serious, but which is a constant source of terror to the poor mother. It is laryngismus stridulus or false croup. The child is asleep, the parents at rest, when suddenly, between midnight and one o'clock in the morning, the baby wakes, taken with suffocation, and a racking, barking, terrifying cough. The result is that in a quarter of an hour or so, according to distance, the doctor is roused from hard-earned rest, drives in a cab across Paris, to see the baby who is dying, as the servant who has fetched him, says. You may assure yourself that, generally speaking, he will be as well as you the next morning. It is none the less true that for several hours the whole house was in the greatest anxiety. To all this excitement the allopathic doctor invariably adds a strong emetic, which necessitates horrible scenes to make the child swallow it, and which makes him worse.

The child often has a return of this disease, whereupon the same emetic is confidently administered—if, indeed, it is not given as often as once a month to prevent recurrence. Instead of all this a few doses of *hepar sulph.* calms the attack and puts all right without troubling or disturbing the digestive organs.

How different is that other terrible disease which is as a nightmare to mothers, the croup or diphtheria!

Here I must be more modest, as the enemy is strong, and it is impossible to say who will conquer. In such a case, if we cannot do very much, though that little is more than anyone else does, one ought to be satisfied and not hesitate to say so. You know how the knowledge of the diphtheria microbe has modified the treatment of this disease. At the present time and always in virtue of the same principle *sublata causa tollitur effectus*,

the false membrane being the seat of the disease, it should be taken away. Moreover, I should not hesitate to say that the local applications with which the little patients are tormented at the commencement of the disease are outrageous, that is to say, when only the pharynx and the passages of the throat are attacked. Up to now I do not know that the extension from the pharynx to the larynx, that is to say, the transformation of diphtheria to croup, has been greatly hindered by them, and that for a very good reason that this procedure answers to an erroneous conception of the disease.

But I am not here to discuss this question. All that I can say is that this proceeding is frightful, and is not justified by results.

We have at our disposal in diphtheria several medicines which vary according to the symptoms of the disease. The one most in favor in both schools is the cyanide of mercury, which was used for the first time by Dr. Beck. The account of that first application was given at the Homeopathic Congress at the Exhibition of 1889, by Dr. Beck, in a most touching manner, as the little patient he saved thirty years before was himself present at the Congress. It was Dr. Alexander Villers. In presence of the despair of his friend, Dr. Villers *père*, and of the hopelessness of the doctor in charge, who saw his little patient growing worse hour by hour, Dr. Beck suddenly remembered having read some observations on a poisoning case by the cyanide of mercury, and was struck by the similarity of that intoxication to diphtheria. He immediately prepared the sixth dilution of that medicine, which up to that time had been known only as a poison, and cured the child. At the same congress of 1889, Dr. Brasol, of St. Petersburg, related to us how, while an allôpathic doctor, he went through an epidemic of diphtheria, and how, profoundly discouraged by his lack of success, he then had recourse to cyanide of mercury prepared homeopathically.

It is certain that the results were convincing, as he has since become one of the pillars of homeopathy in Russia.

As I told you, that is not the only remedy; notably *bryonia*, *hepar sulph.*, and *spongia*, find most useful indications. I ought to speak two or three words on a delicate matter. There is a general belief abroad that when a case of croup is treated homeopathically there can be no question of tracheotomy. This is a grave mistake. There ought to be less occasion to practice it, but there are cases where, in spite of everything, we have to resort to it. You will say, then, that the situation of a child operated upon by a homeopath is the same as that of a child operated upon by an allopath. This, also, is a great mistake. What have you done when you have performed tracheotomy? You have simply kicked over the stove of a man who had lighted a bushel of charcoal in his room, and who was half dead when you arrived. It is a precaution, it is a respite that is given you in order to save him. Yes, but in allopathy that respite is all, and they count on a good constitution and generous wines to do the rest. We have something else besides. When we have given air to the child in order to give ourselves a little time, we attack the diphtheria, which has not been disarmed, and which, in more than half of the cases, renders your operation useless. It is this which gives us superior results in our operations. We do not operate better, but we take better care of our patients, because we attack the disease, while they only give palliative medicine.

I will now speak to you of a disease which we consider a signal triumph. I refer to whooping cough, which, if not generally serious, is always very painful for the children who are attacked by it.

When I was a student I assiduously attended the clinical lectures at the Children's Hospital, and I have many times heard a most renowned children's doctor say: "Whooping cough is a disease which lasts at the least three months,

and may last eight." Our maximum does not reach this minimum, for I have never seen whooping cough last three months, even among those children whom it is impossible to keep indoors, still less among children whose good fortune it is to be kept in an equable temperature.

Allopaths usually prescribe the emetic already mentioned, syrups and juleps, with more or less opium, not forgetting change of air and a visit to the gas works. Change of air never produces any great result, and a visit to the gas works generally brings about spitting of blood. They have given up that, and now usually prescribe belladonna, which is a medicine they have borrowed from us. I say borrowed, because I have been well brought up. It was the same with drosera, that Constantine Paul "discovered" some years ago. Unhappily, our adversaries, in discovering our remedies, behave themselves like the inhabitants of Falaise. They take the lamp, but they do not light it. So they have but small success with our medicines, or none at all.

The same children's doctor of whom I spoke just now stated every year in his clinical lectures on whooping cough, and will go on repeating it: "I have employed drosera in whooping cough, I have given as much as two hundred drops of mother tincture a day and I have never had any good results." I must confess I should have been much astonished had it been otherwise. Whenever this gentleman likes, I will take a number of whooping cough cases and guarantee to cure them in a month or so with this remedy, and many of them will be cured in less time. I shall give drosera in the twelfth dilution, a few drops in two hundred grams of distilled water, of which each child shall take three dessert spoonfuls a day. Whenever he likes to make the little experiment I am at his service.

I will not speak to you of eruptive fevers, which take a simple course, but which gain much by homeopathic treatment. I am convinced that our remedies often prevent those complications which are most to be dreaded.

Leaving now the subject of acute diseases, a certain number of which we have considered together, let me speak to you of chronic maladies, and especially of those which affect the bones. They are most serious, for although they do not kill, they nearly always leave the patient an invalid. I could quote you a number of cases that were cured, but I will only give one. I was called in two years ago to a shoemaker's child, thirteen years old, whose limbs, they feared, would have to be amputated. Before having recourse to this extreme measure the parents wished to try everything, and before going to different bone-setters they came to a homeopath! I found myself confronted with a horribly swelled foot, traversed from instep to sole by a drainage tube, besides eight or ten sinuses, making a veritable circle of pus. It was not very hopeful, but I undertook the case. For eighteen months I attended that child, treating the case entirely with medicines taken internally, and always in the thirtieth dilution, silica, mercury, calcaria, and particularly gold, continuing them for a long time. During the whole of the treatment neither bistoury nor knife was used. To-day that child is at work; he wears shoes and stockings like anybody else, and walks about Paris without crutch or stick.

I could cite to you cases of hip disease, Pott's disease, bone diseases of all sorts, but these are in the same class as the case which I have just related, so I will pass on. The only point on which I would like to insist, on the subject of the treatment of these long-continued bone affections, is this—success depends not only upon the perseverance of the doctor, but also on that of the parents.

The perseverance of the doctor consists in continuing a long time with the same medicine. The patient of whom I was speaking took gold for at least six months continuously. The perseverance of the parents, which is much more difficult to obtain, consists in going on with a treatment of which the daily results are imperceptible. Never-

theless, believe me, the results are sufficiently gratifying if the doctor has strength of character to resist the desire of the patient, otherwise very excusable, to make more rapid progress.

Last year, on the subject of these chronic diseases, I indicated, in passing, the possibility of a prophylactic treatment of hereditary diseases. I will ask your permission to speak a little this year on the same subject.

Everyone knows how in this century there have been theories and hypotheses which have successively governed official remedies, theories taking the place of or reversing the preceding ones, in such a manner that the therapeutic means of one day were condemned by those of the next. For some years medical science, which disparages the infinitely small in effect has rested solely on infinitesimal causes—that is to say, on the microbe. The microbe is the cause of everything. It is the productive agent of diseases and the vehicle of contagion. In virtue of the adage, *sublato causâ, tollitur effectus*, pathology being microbic, therapeutics has become microbicide. I will not speak to you of the therapeutics which in killing the microbe often kills the patient, or which, in more fortunate cases, produces nothing at all.

I will only speak to you of the microbic theory, which necessarily leads us to the theory of the contagiousness of disease, and, as we are speaking of chronic diseases, that most terrible of all, tuberculosis.

In the present day it would be no use denying that tuberculosis is contagious; proofs of it are numerous and conclusive. But the mistake is to make contagion the first cause in the development of that fatal malady, when it is only the second. In fact, the number of people who for months live in intimate relations with tuberculous patients, and never become tuberculous themselves, is very large. And why? As certain seeds will only germinate in certain kinds of soil, so the bacillus of tuberculosis will only de-

velop under suitable conditions. Everyone has or has not this predisposition. This is the first cause, thanks to which the second, that is to say, the microbe, will find the condition favorable to reproduction, and without which it will remain inactive and without danger.

In a very important article, published in Professor Verneuil's "Experimental and Clinical Studies on Tuberculosis," and reproduced in *L'Art Médical*, of February, 1893, our *confrère*, Dr. Jousset, Sr., has established the truth of this doctrine by a great number of absolutely conclusive observations. I will, if you will allow me, add this little incident from my own personal experience. About two years ago there was brought to my dispensary a child of three years of age, suffering with Pott's disease, or caries of the spine; or, to be more exact, spinal tuberculosis. In questioning the parents I found it impossible to discover any trace of tuberculosis in their antecedents. I attended that child for six months, when the father, a man thirty-nine years of age, came to consult me. His right thigh was affected, he could not walk, and on palpation a tumor was found in the middle of the femur. He had consulted a surgeon at the hospital who had diagnosed the case as a syphilitic affection. The patient assured him that he had never had venereal disease, but the doctor persisted in his diagnosis all the same, and administered specific treatment. This treatment, rigorously carried out for the space of two months, produced absolutely nothing. It was just at this time that the patient came to me. I must say that the same idea presented itself to my mind; but the denial of the patient and his great desire to be cured himself, and having consequently no interest in hiding the truth, coupled with the absolute uselessness of specific treatment, made me quickly abandon that hypothesis. I thought then of his child suffering from spinal tuberculosis, and diagnosed the case as tuberculosis ostitis. The tuberculous father had begotten a tuberculous child, but had not himself de-

veloped tuberculosis until after his child. To-day the father is entirely cured, but, unfortunately, we have not had the same success with the child. This patient had seen two doctors—the one imbued with contagion ideas, the other with hereditary ideas. The first was mistaken, and the second made a correct diagnosis, as the result proved. I have related this incident because it is of the same character as those which led Dr. Jousset to the following conclusions:

“The bacillus of tuberculosis has been found in the fetus and in the newborn child, arising from the phthisical mother. Observation has shown the latent existence of bacilli during long years. These two facts explain both the later development of and the heredity of tuberculosis.

“In hereditary transmission tuberculosis can change its form, a milder form can succeed a malignant one, and *vice versa*. These transformations explain the inheritance of tuberculosis in a patient where the antecedents enjoy the appearance of good health [as in the case which I have just cited].

“The exaggerated importance of contagion to the detriment of heredity constitutes a public danger, because it prevents proper precaution being taken to restrain the hereditary tendency and thus to diminish the dangers.” This last conclusion leads me to the point of departure in this digression, that is to say, prophylaxis.

The idea of prophylaxis is not new, since in the last century Bordeu said: “Why not give to the newborn child, besides a chosen or particular diet, those remedies capable of removing hereditary impressions?”

That idea was taken up and fully developed in 1843 by Dr. Gastier. In 1847 he wrote thus: “The number of subjects submitted by us to this prophylatic treatment amounted to nearly two hundred. The state of their health varied greatly, but nearly all were suspected of some inherited taint, manifested or not, from which we hoped to

set them free by the treatment; it has not come to our knowledge that one of these children has died. And whatever part chance may have played in such an experiment, you will acknowledge that I have some right to produce it, if not absolutely as a proof of the excellence of the proceedings, at least as an encouragement and a stimulus to others.

"My father, who has practiced homeopathy for forty years, firmly believes in it, and his experience is sufficient to engage my interest and attention. I believe that, although one cannot prove that a man who is not tuberculous will become so if he has not followed this treatment, no more can you prove that he would not have become the prey of tuberculosis if he had done nothing. At any rate, he has the advantage and benefit of the doubt.

"I will now call your attention to an instance of a family in which three children died, two of them of tuberculous meningitis and the third of mesenteric tuberculosis. Four other children were born. The four have undergone the treatment in question, and are all quite well, having already reached a greater age than the first three who died. I repeat that, although it is not an undeniable proof, it is too serious a presumption to put on one side."

This treatment is composed of thirteen remedies, which are given in the following order: Sulphur, sepia, carbo veg., arsenic, belladonna, lachesis, nitric acid, silica, thuja, lycopodium, graphites, calcarea, phosphorus, each one to be taken for several days. Then we stop for some months, and begin again. It is not inconvenient nor difficult, and according to an old saying, "If this will not do any good, it will not do any harm."

In conclusion, let me meet an objection that might be made, and which certainly will be made by the allopathic doctors, if there are any who have done me the honor to listen to me. They may say to me: "For one hour you

have made affirmations, but have given us no proofs." Well, I maintain my affirmations, and as to the proofs, you may have them when you will.

All the facts that I have given you occur daily in our hospitals and dispensaries, and the doors are wide open. If, then, while rejecting false shame and hypocritical dignity, you will come and see with your own eyes what we are doing, you will gain information and give us pleasure. We ask but one thing for the propagation of our ideas and of our doctrine, and that is the full light of day, this light which our adversaries have always refused to allow us to show them in their hospitals, and which they take good care not to come and observe in ours. But, notwithstanding all these obstacles, notwithstanding all their ostracism, they can never discourage us.

Let us always keep in mind the words of Alexandre Dumas, Sr.: "If you think that evil triumphs, it is because you have not looked long enough."

Homeopathy is good, is true; then it ought to triumph, and it will triumph. Everything consists in looking long enough.

PECULIAR POSITIONS OF FETUS IN TWIN PREGNANCY.

BY

HENRY CROSKEY, M. D.

A PHYSICIAN in general practice meets with curious cases. Some of them are described in books, and of others he never sees an account, so it is to be expected he thinks he is the only one who ever had a case just like it.

It will be three years next August since I attended a lady in confinement. She is about four feet eight inches tall, and very nearly as broad as she is long. I attended her

about a year before, for pin-hole os. I did not notice any malformation of the pelvis during treatment for the cure of the pin-hole, nor did I notice particularly her back, which I afterward found to be a sway-back.

When I was called to attend her I made a thorough examination of the abdomen, and noticed a protuberance directly in its center, bulging at least three inches beyond the normal abdomen in that condition. I explored the abdomen thoroughly, but could not find any part that I could say was head or breech of a child.

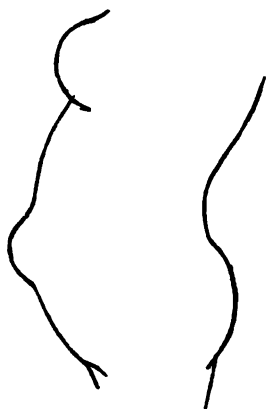


FIG. 1. Side Position.

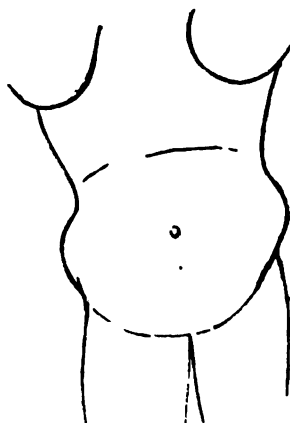


FIG. 2. View from the Front.

The abdomen seemed pushed out over each hip more than is usual in such cases. I then made a vaginal examination, and found the os dilated about the size of a silver dollar, with something soft presenting, which I diagnosed as part of the placenta. This was in the morning, about six o'clock. About eight o'clock the os was about three inches in diameter, and the sac was pressed into the vagina nearly to exit, and yet there was nothing to be found of a fetus. By twelve o'clock the os was entirely dilated. Nothing but a sac of water could I find. I allowed the afternoon to pass away, waiting for the presenting part, and

all the difference I could find was that the sac grew larger. About seven o'clock I chloroformed to make a thorough examination. I ruptured the sac, and as far as I could reach with my forefinger I could not feel anything. Then I introduced my hand to the brim of the pelvis. I found the antero-posterior a little over $2\frac{1}{2}$ inches, and the transverse diameter about $5\frac{3}{4}$ inches. Now I swept my hand around through the abdomen, and found two fetuses lying with their heads together, one face down, the other face up,

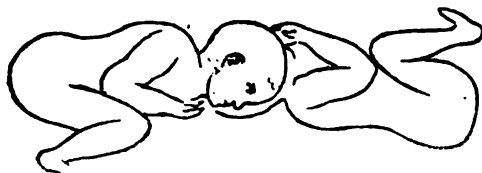


FIG. 3. Position in Utero.

and their breeches directly across the abdomen, one on each side. I took hold of the right thigh of the fetus lying with breech to the right, and engaged the breech in the pelvis, and awaited a pain. After the pain, I let loose the thigh, thinking the fetus would descend. After two or three pains had passed, I introduced my finger to see how things were progressing, and found the baby gone. It had returned to its former position.

Twice I repeated the same proceedings. The third time I held on to it, and meeting with so much resistance, I hooked the finger of the left hand into the left thigh, and drew with a great deal of force; in fact, with so much force that I broke the right leg. In a short time I delivered this baby. Cutting the cord I tied the string to it, so that I could tell it from the next one. Again introducing my hand, I caught the second baby by the neck, and brought its head partly past the brim of the pelvis; then, letting loose to get my forceps to introduce them, I found that the head had disappeared. Introducing my hand, again

I brought the head farther into the pelvis, and then got the forceps, and, after introducing the blade, could not find the head. Again I brought it down to the pelvis. This time, I got the nurse to push against the breech, and hold the child into position until I could attach the forceps. It was but a short time until I delivered the second child. After cutting the cord, I tied it into a knot. Now I delivered the placentas, and, upon examination, I found that the placenta of the first enveloped both of the children.

Its attachment was to the right side, close to the fallopian tube; the placenta of the second child was attached to the left side, close to the left fallopian tube, through the placenta of the first. The first was a girl, the second a boy. They are both living to-day.

There is a question that I am not able answer:

Why should each child, after being brought down into the pelvis, go back to its first position, even after they were held there for the uterus to contract with the pains?

PUERPERAL FEVER.

BY

MARGARET HISLOP, M. D.

AS indicated by its name, puerperal fever is a kind of fever peculiar to childbirth. It may arise either from the condition of the patient individually, or be communicated from outside sources. Its ordinary manifestation is within three to six days after parturition, and its ordinary course is from one to two weeks.

Sometimes, but not ordinarily or frequently, there are resultant forms of disease liable to supervene under certain forms of labor or certain constitutional conditions, and

these may last for months, and are critical. Prolonged debility, uterine displacements, abscesses, dropsical conditions, are some of these.

Puerperal fever is probably as old as woman and labor, as woman is the subject and labor the condition. The earliest medical writers mention it ; records of its existence in epidemic and very fatal form in England and on the Continent of Europe exist, dating back more than 150 years. To generalize, it may be said that moral causes for its occurrence predominate among the better classes, and physical causes among the poorer classes. Instances are on record showing it may be communicated in very dangerous form from physicians who themselves are suffering from some kind of blood poisoning.

The natural forces of resistance on the part of the physical nature are prostrated in the puerperal state, so that the proximity of diseases, poisonous in themselves, is a serious source of danger. Such, also, are the results of wounds or laceration, the presence of hospital exhalations, epidemic, exposure, or incomplete delivery. My own experience agrees with the teachings of eminent authors and practitioners—that all rupture or laceration from delivery should be attended to surgically at once. The greatest safety lies in immediate suture when the use of the needle becomes necessary. The physician in attendance on a case of puerperal fever should insist on neatness and cleanliness in all appliances and persons, and should individually attend carefully to personal cleansing after contact with poison-breeding substances.

While the disease cannot be said to be of frequent occurrence, there is no city where a practitioner may not be called to attend a case.

In my own practice there have been a number of cases, every one of which has been successfully treated. Instances in which there were more than ordinary critical conditions, or where subsequent complications have arisen,

have, however, been few. A case was, on one occasion, turned over to me, in which the indications were very grave—a case of puerperal peritonitis. I found the patient with great abdominal distention and in almost mortal pain. Hot water injections of hops were ordered peremptorily, and relief followed. Under subsequent treatment the patient recovered, and is now living and well.

For various manifestations of the disease, there are various remedies prescribed in the books. I have found *verat. vir.*, *verat. alb.*, *bell.*, *bry.*, *rhus tox.*, *merc. corr.*, *ars.*, very useful. The standard common remedies, according to condition—*gels.*, *hyos.*, *apis mel.*, *stramon.*, *acon.*, *china*,—I have also used with good response. Symptoms vary so much, although the fever itself is as distinct as can be, that close watching is needful. I have not found a case where it was necessary to use quinine, although it is recommended in certain cases by high authority. I have used, with advantage, alcoholic stimulants. In no case must suspension of the ordinary functions of the bladder be allowed, and the catheter must always be used when the urine is abnormally retained. I have found it necessary, also, to use the blunt curette, and have no doubt there are occasions in which the sharp instrument should also be used.

From first to last I have insisted on perfect cleanliness, and spare no inspection in this matter, and no means known to the profession to insure local cleansing in the patient, and also to insure constant care as to washing, bathing, cleanliness in all attendants and all surroundings.

From my own personal observation, I am sure that puerperal fever occurs not only in hard labor or other difficulties in parturition, but may also occur after easy labor, and every case should be watched with this in view from the beginning.

METRORRHAGIA.

BY

P. JOUSSET, M. D.

HEMORRHAGE from the uterus may take place during menstruation or between the periods. In the first case we call this symptom menorrhagia; in the second it is metrorrhagia, properly speaking.

At the critical age we frequently find metrorrhasias which cannot be placed in either of these categories; these are, therefore, metrorrhasias essential. But nearly always metrorrhagia is a symptom. We find it in abortion, during accouchement, in the course of tumors and of cancers of the uterus. It is the habitual symptom of fungous metritis and of pelvic peritonitis.

We also meet with uterine hemorrhage in fevers and in purpura hemorrhagica.

From the point of view of symptomatology and treatment we distinguish metrorrhagia as profuse, medium, and feeble. Very many medicines are indicated in the treatment of metrorrhagia. The principal are: arnica, sabina, secale cornutum, crocus, chamomilla, thlaspi, ledum palustre, ignatia, platina, digitalis, argentum oxydatum, arsenicum, ipecac, china, hamamelis, hydrastis, coffea, ferum, millefolium, phosphorus, ruta, vinca minor, lachesis, trillium, creosotum, magnesia.

To bring the study of all these medicines into order we establish the grand categories of hemorrhagias, and we seek to find which are the medicines indicated in each one of these categories.

A. Treatment of Menorrhagia.—Menorrhagia constitutes a natural category of uterine hemorrhage, having very distinct characteristics, which appear at the menstrual period. It is a menstrual flow, excessive in quantity, and generally

in advance of the period, although it may be retarded. It is accidental or habitual, and accompanied with pain or not.

In menorrhagia the treatment is divided into that which attacks the general condition and which is administered between the periods and that which is addressed to the condition itself and is prescribed during the hemorrhage.

The principal remedy to give during the interval is arsenicum. It is almost the only medicine which has served me in this condition. The pathogenesis gives only menses too soon and too abundant, but the clinic has demonstrated many times the efficacy of this medicine in menorrhagia. This excessive menstrual flow may be caused by a fibrous tumor, by a polypus, by pelvic peritonitis, by a menorrhagic chlorosis. It may be an essential hemorrhage due to the menopause, and, finally, it may spring from a vascular endometritis.

In all these cases, when the flow is excessive, when it is much prolonged, and when it exhausts the patient, I prescribe arsenicum.

Doses and Mode of Administration.—I usually prescribe it in the third trituration— $1\frac{1}{2}$ gr. morning and evening. The patient begins taking the medicine on the fourth day of menstruation, even when the flow has not ceased, and continues taking until the next period. This medication should be continued during many months.

If, as is usual, menstruation is too soon, I give, in addition to the arsenicum, at night, when going to bed, ignatia 12 or calcarea 30.

Ignatia will be preferred if there are any hysterical symptoms; calcarea in persons subject to congestions, particularly if the breasts become painful to the touch at the time of menstruation.

There are many other medicines which may be given under the same circumstances as the arsenicum, as the acetate and phosphate of iron, platina, borax, calcarea,

silicea, and many other medicines with which I have not had clinical experience.

Treatment during Hemorrhage.—Here the number of remedies is considerable, and for some of them only can I give positive indications; the others are yet in the domain of empiricism. Sabina, secale cornutum, crocus, chamomilla, argentum oxydatum, hamamelis, trillium, ipecac, and thlaspi are the remedies for abundant hemorrhage.

1. *Sabina.*—Sabina is a traditional remedy for metrorrhagia. It has abortive properties. This medicine rests upon two indications—an abundant flow of red blood and the presence of marked uterine colic.

Doses and Mode of Administration.—Two, three, and even seven grains of the first trituration, dissolved in six ounces of water. A spoonful every hour, lengthening the interval in proportion to the amelioration produced.

2. *Secale Cornutum.*—This remedy is indicated in nearly opposite conditions to the sabina; an abundant flow of black blood, with an absence of uterine contractions, the hemorrhage is more abundant at night than during the day.

In ordinary cases the dose advised for sabina will be sufficient, but if it is inefficient six to eight grains of the substance should be given. Ergotine Tanret, which is administered in hypodermic injection, sometimes constitutes a resort in rebellious cases.

3. *Crocus.*—Saffron still has place in ancient therapeutics, where it is sometimes given for amenorrhœa. It is for this reason that we employ it in the treatment of metrorrhagia. This remedy is indicated when the hemorrhage is profuse; when the blood is black and clotted. These are the two signs which should guide us to the choice of this remedy.

Doses and Mode of Administration.—I prescribe the medicine generally in the first six dilutions. I am accustomed to give from five to ten drops of the mother tincture in six ounces of water. A spoonful every two hours.

4. *Thlaspi*.—Although we do not have the pathogenesis of this remedy I place it immediately after crocus, because I have many times demonstrated in the clinic its curative action in menorrhagia of the critical age and in that of the menopause.

Doses and Mode of Administration.—Twenty to thirty drops of mother tincture in six ounces of water. A spoonful every two hours.

5. *Chamomilla*.—This medicine is very frequently employed. It is indicated in profuse hemorrhages with clots; dark red blood. Its characteristic is the pain. As concomitant symptoms we observe gaping and yawning; light chills, alternating with heat.

6. *Hamamelis*.—Profuse hemorrhage. The blood is dark, fluid, and non-coagulable.

Doses and Mode of Administration.—The first three dilutions and a few drops of the mother tincture in a potion. A spoonful every two hours.

7. *Ipecac*.—As is well known, this is an anti-hemorrhagic remedy of great power. Manget and Baglivi prescribed it in the last century. In the allopathic school Graves, Trousseau, and Pereira strongly advise it. Hahnemann also advised it in metrorrhagia. Richard Hughes, who recommends it, does not give any other indications than that of the resistance of the hemorrhage to crocus and sabina.

Doses and Mode of Administration.—Four to fifteen grains of the first decimal trituration in a potion. A spoonful every two hours.

8. *Argentum Oxydatum*.—This medicine is useful in very rebellious metrorrhagias which have resisted all other medicines.

Doses and Mode of Administration.—One to five grains of the first decimal trituration in a potion. Three spoonfuls a day.

9. *Nitri Acidum*.—This medicine is indicated in chronic hemorrhages. Dr. Ludlam, who has recommended it, gives

the following indications: The blood escapes slowly. It is subjected to the action of the air some time before being expelled. The discharge then resembles a melæna. Sometimes it is very abundant.

Doses and Mode of Administration.—Ludlam recommends the second decimal attenuation. Twenty drops in half a glass of water. A dessert spoonful every hour.

10. *Trillium*.—Dr. Hale recommends this remedy in profuse hemorrhages with clots; extremely fetid.

Doses and Mode of Administration.—The mother tincture and lower attenuations are employed.

11. *Magnesia*.—This remedy is special to menorrhagia. The characteristic indications are violent pains, during which the hemorrhage is arrested.

Doses and Mode of Administration.—The higher dilutions have usually been employed.

We may also consider: creosotum, when the blood is black; millefolium, digitalis, whose action resembles that of secale; coffea, belladonna, ferrum, vinca minor, and finally lachesis and elaps, which are indicated in hemorrhages at the climateric.

These details, which we have given, greatly abridge what remains to be said.

B. Irregular Metrorrhagias.—These are profuse and accidental or feeble and continuous.

a. Profuse Metrorrhagias.—These are found particularly in cancer of the uterus, in patients having a fibrous tumor, and at the time of the menopause in the metrorrhagias of the critical age.

The medicines indicated are sabina, secale, crocus, hamamelis, trillium, ipecac, argentum oxydatum, and nitri acidum, according to the indications previously given.

b. Feeble and Continuous Hemorrhages.—Arsenic, ledum palustre, argentum oxydatum, and nitri acidum are the principal remedies indicated.

C. Metrorrhagias in the Puerperum.—Secale is the medi-

cine principally indicated, and in strong doses, because in this dose ergot acts not only as a hemostatic, but also as having a special action on the uterine fiber, particularly during pregnancy.

Chamomilla is also an important medicine, particularly for preventing abortion. I have indicated in the preceding section the special indications. When the pains are violent and seem to press downward, it is well to alternate the chamomilla with belladonna.

Adjuvants and Surgical Intervention.—Absolute repose in a horizontal position is best in serious hemorrhages. There are cases where the application of cold and of ice are beneficial, but more frequently better results are obtained with irrigations of two, three, or four gallons of hot water (104° F.), repeated many times during the day.

Surgical intervention, which applies only to accidental hemorrhage, comprehends compression of the aorta in the puerperal state, and tamponment in other hemorrhages.

POLYPUS OF THE UTERUS.

We call polypus of the uterus all pediculated tumors developed in the interior of the uterus or its neck. We distinguish between mucous and fibroid polypus. I shall say a word also on the tumors called fibroid polypi by Velpeau and Kinich.

1. *Fibroid polypi.*—These are nothing more than the sub-mucous pediculated fibroma.

2. *Mucous polypi.*—These polypi have their origin nearly always in the mucous membrane of the neck. Nevertheless, they are sometimes found in the uterine cavity. Generally there is found but a single polypus. Other times they are developed in great numbers. From the point of view of pathological anatomy, we distinguish many varieties—the mucous polypi, properly speaking, vascular polypi, and glandular polypi.

A. Mucous polypi, properly so called.—These are formed

by the hypertrophy of all the elements of the mucous membrane. They originate in the cervical cavity, near to the uterine orifice; they are very small, their volume varying in size from that of a grain of wheat to that of a bird's egg. The pedicle is generally short; it is always delicate, and sometimes long. The color varies from gray to rose.

B. Vascular polypi.—These differ from the preceding only by their greater vascularity. Their surface is irregular, their consistency soft, their color red. They are developed from the mucous surface of the uterus.

C. Glandular polypi.—These are developed at the expense of the follicular glands of the mucous membrane. They are much larger than the preceding, and may attain the size of a hen's egg.

I will not speak of the papillary polypi, because they are morbid products of the same nature as the vegetations which are developed on the vulva following blenorrhea.

As to the fibroid polypi, these are hematomas, developed after pregnancy, and at the expense of a portion of the placenta, which remains adherent.

Ætiology.—The mucous polypi are often the result of metritis, without, however, this cause being able to explain the pediculation.

Symptoms.—The common symptom is that of hemorrhagic endometritis, and we can make an assured diagnosis of polypus only by direct examination of the neck and of the cavity of the uterus.

Treatment.—The medicines which have sometimes caused the wasting of a polypus are the same as those which have been employed in the treatment of what Hahnemann called sycotic diseases, which comprehend the vegetations, warts, and polypi.

These medicines are thuja, nitri acidum, lycopodium, silicea, staphisagria, calcarea carbonica, and teucrum mare.

Petroz produced the discharge of a polypus of the uterus with thuja. Other physicians have reported analogous

cases with thuja, calcaria carbonica, and conium. I produced the discharge of a mucous polypus with nitri acidum.

In this affection we are often obliged to combat the hemorrhages which constitute one of the common symptoms of the disease. For remedies, see metrorrhagia.

If the polypi resist medical treatment, and give rise to frequent hemorrhages, there need be no hesitation in destroying them by extraction, torsion, ligature, excision, followed by curettage.

MULTIPLE PREGNANCIES.

BY

GEORGE ROYAL, M. D.

MY experience with multiple pregnancies has not been very extensive, but out of nine cases two have been of more than usual interest to me. The details are as follows :

CASE I. February 8, 1885. Both males. Both alive at the present time, the first a footling, the second head presentation. A common placenta with the two cords attached about two inches apart.

CASE II. June 5, 1885. A pair of twins, the result of an abortion at the fifth month. I do not remember the position or anything about the placenta, except that there was only one.

CASE III. December 26, 1886. One male, one female. Both breech presentation. Both alive. A common placenta, cords attached about two inches apart.

CASE IV. June 7, 1888. Same individual as Case III. gave birth to twins. Both breech. One placenta with cords attached about four inches apart. Both males, but the second was stillborn. The other is still alive.

CASE V. June 12, 1888. One male, one female. Both

breech. United weight a little over sixteen pounds. Each child had a separate placenta.

CASE VI. February 6, 1889. A case of premature birth (sixth month). One boy and one girl. Both born when I arrived. Both dead. One common placenta, the cords attached just opposite each other on the sides.

CASE VII. April 1, 1894. Two males. United weight a little over fifteen pounds. The first head presentation; the second the feet presented. Both alive. One placenta, the attachment of the two cords being close together.

CASE VIII. June 5, 1894. This was the first case of interest. I was called in the early morning to deliver Mrs. M. Her abdomen was enormously enlarged. She had been in labor over twelve hours, and the pains were growing weaker. This was her first pregnancy. Examination showed the os well dilated, head presenting at the superior strait. As the mother was becoming exhausted and the pains were of no avail, I put on the forceps and delivered a large male child, healthy; finger-nails and skin showing that he had arrived at full term. The absence of this child made but little difference in the appearance of the abdomen. On the mother's right side I could clearly outline the back of the second child, but when about halfway down there seemed to be a septum, and the emptied portion of the uterus lay to the left and below this child. A profuse hemorrhage caused me to make an examination, when to the right and high up I detected the second bag of waters. This I ruptured, and as the hemorrhage was growing worse, I had an assistant push down on the breech while I put on the forceps and delivered the second child. The uterine contractions were deficient, and it was a long time before the hemorrhage was controlled. The second child showed by the nails, color, and everything else that the first-born had the advantage of age. Subsequent examination confirmed our diagnosis of bifurcated uterus; and the fact that the woman had only missed eight menstrual periods, together

with the appearance of the children, convince me that there was a difference of four weeks in the times of conception.

CASE IX. February 7, 1895. On my return from Iowa City at 5 A. M. I was informed that Drs. Ross, Eaton, and Goodrich had been waiting for me before deciding what to do in a case of confinement at the Benedict Home. I found a large Swede girl who had been in labor over thirty-six hours. The pains had been severe, but were now weak. Examination revealed a contracted pelvis ($2\frac{3}{4}$ inches); one breech presenting, and over this a foot belonging to another child. From the outline it was clear that the heads were locked. This condition had existed several hours, and we all agreed that the best thing for all was the Cæsarian operation. We decided to wait till daylight, 8.30, but a convulsion at six admonished us to make haste. We were ready at about 7.30, when a second convulsion caused about twenty minutes' delay. The incisions were then made, and the two children (girls) removed. The twins each had a separate placenta, and both were removed without cutting in order to save time, as the hemorrhage was profuse. The uterus was sutured with catgut, and the abdomen was closed with silk. The last stitch was tied at 8.25, about twenty-seven minutes from the time of the first cut. The woman reacted without any apparent shock. The temperature reached its highest, $103\frac{1}{2}$, at midnight of the 8th of February. From then till noon of the 9th the bowels moved several times, and the temperature began to go down. There was at no time delirium or chills. At 6.30 P. M. of the 11th the pulse was 115, temperature 100. The woman was cheerful, and the skin felt normal. The pulse was good in quality. From midnight till 6 A. M. of the 12th the pulse went up to 136, but the temperature remained at 100. This was the beginning of the end. I went to Iowa City at 7 A. M.; at 11 Dr. Ross was sent for and saw unmistakable signs of pyæmia. In the evening Dr. Eaton irrigated the abdomen, but all to no purpose, for she failed gradually and died at one

o'clock of the 13th. The remedies used were rhus tox., ars., and bell. at different times during the six days. During the first forty-eight hours she had nothing but hot water. After that milk and liquid beef peptonoids were added and gradually increased in quantity.

ERGOT IN LABOR.

BY

LOUISE Z. BUCHHOLZ, M. D.

ERGOT is a very valuable drug when given at the proper time, but can do a great deal of harm when used indiscriminately. Much of the unfavorable communications concerning ergot must be put down to its indiscriminate use, and a beginner in practice becomes naturally afraid to use it, consequently scorns this valuable drug, when it may, at the proper time, save much suffering to the parturient woman, and, indeed, even save her life, or that of her child.

Of course, my experience with ergot has been varied, but, while it has done no good whatever in some cases, I can report no serious harm done, possibly because I have not given it in sufficiently large doses to be productive of evil.

I never go to a case of labor without a bottle of Squibbs' fluid extract of ergot in my obstetrical bag, but only use it when absolutely necessary. A nurse, recently, was very anxious to have me administer it to a patient "to hurry up the case," as she said, and on my refusal on the plea that the case was advancing rapidly enough to suit me, she asked whether I was homeopath. Upon my replying in the affirmation she said *she* was an allopathic nurse, and that the doctors she was accustomed to go with *all* gave ergot. How fortunate for many of my women that I am a homeopath!

Ergot and its active principle, ergotin, act on unstripped muscle fiber. Now, as you know, we find unstripped involuntary muscle fiber throughout the digestive tract, genito-urinary tract, respiratory tract, and in the walls of blood-vessels. All of the symptoms of ergot poisoning can be traced to its action on unstripped muscle fiber. Because we call ergot an oxytocic, that is, a substance capable of increasing uterine contraction, we are liable to overlook its action on other remote parts. It produces vomiting and purging, but only through its power of contracting the wall of the digestive tract, so causing increased peristalsis. Also because there is a venous stasis.

This venous stasis I regard as the most serious symptom of ergot poisoning, because productive of the most serious results. This stasis arises, not from the action of the ergot on the veins, but from its action on the walls of arteries. The contraction of the walls of the arteries diminish the amount of pure blood sent to the part; and, as the arterial pressure is one of the forces necessary to impel the blood through the veins, any diminution in the amount of pressure would cause a stasis in the veins of the part, especially as the heart is also weakened, and is unable to empty the large venous trunks which open into it.

This is the whole secret of the disastrous action of ergot when given at the wrong time, in too large doses or in too long continued small doses.

Women frequently take ergot to procure abortion during the first few months of pregnancy, and it would be better for the child if they succeeded in their attempt, as the ergot almost invariably impairs the child's health. No vomiting or purging may be complained of, but we may notice on the body—especially on the lower extremities—red or purplish spots, the beginning of a gangrene. This is due to the impeded arterial circulation and venous stasis. This same condition is found in the uterus. The action of the drug may not have been powerful enough to cast off the

fetus, but the muscles contracting on the arteries of the uterus so diminish the amount of pure blood carried to the child, that, with the increase of venous blood already present, they will not permit the organs of the child to develop in a natural, healthy way.

When given during the first stage of labor in appreciable doses, it may diminish the circulation to and from the child to such an extent that, if the labor is at all prolonged from some cause or other, the death of the child must result.

Now, when shall we give ergot? In the first stage I rarely give it, because we have other drugs more likely to be indicated. When the uterine walls are soft and flabby, and unable, from weakness, to contract properly, I have given it in small doses; that is, 15 to 20 drops in a half tumbler of water; a teaspoonful to be given every ten to fifteen minutes. After a few doses have been given, the uterus begins to contract, as noticed by the uniform hardening during the pain, and I then know that my drug is acting well. Not always, however.

Now, if I had given a larger dose—that is, from a half to a whole teaspoonful of the fl. ext., what would have happened?

Besides the danger to the child already mentioned, the uterus, already weak, and perhaps thin, from over-distention, would have contracted so suddenly and so strongly that in unfavorable cases rupture of the uterus would have taken place, or the contraction would have forced the child down so strongly as to expel it at the expense of the cervix, or, just as unfortunately, the fibers of the cervix contract so firmly as to imprison the child, endangering its life, and putting our patience to a severe test in trying once more to induce dilatation.

In the second stage it is more likely to be indicated. Sometimes the child is down in the excavation, when the pains cease entirely. Here half a teaspoonful of ergot may produce one or two good contractions, enough to bring

about expulsion of the fetus. But here again caution must be observed. The pressure of the child's head gradually dilates the inferior strait, and so prevents rupture of the perineum. As long as there is no pressure on the cord, and not too great compression of the head, reasonable delay in the expulsion of the head endangers neither mother nor child.

If we allow our impatience to get the better of our judgment, and we "hurry up the case" with a big dose of ergot, we may have the trouble of sewing up a perineum, torn by the too rapid expulsion of the fetus.

In case of a multipara I inform myself as to the occurrence of afterpains in former labors. If so, I try to avoid giving ergot, because, as I find, it intensifies the afterpain. Yet, even such women will at times have alarming hemorrhages from inertia of the uterus before the advent of the afterpains. This inert condition we can discover before the expulsion of the placenta, and a little ergot may prevent *post-partum* hemorrhage. As long as the placenta remains in the uterus it acts as a foreign body, stimulating the muscle fibers to contract. If, however, as is frequently done, the placenta is extracted before the uterus has time to contract firmly, a gush of blood from the open sinuses will forewarn us of an impending hemorrhage. A rapid delivery of the placenta can only be desired in cases where the contraction of the uterus persists after the expulsion of the child. Delay in the delivery of the placenta arises either from inertia of the uterus, adhesion of the placenta, or retention of the placenta from some obstruction somewhere in its passage downward.

In the first case a dose of ergot may be of benefit. In the second and third cases manual assistance is required, and the ergot would serve only to contract the uterus on the placenta, either in the form of an hour-glass contraction, or the cervix tightens around the placenta. In either case much time is lost in repairing our error. Discrimina-

tion and common sense must be our guide in every case. With a thorough knowledge of the action of ergot, and a thorough knowledge of the physiology of labor, we will forever refrain from calling ergot a dangerous drug.

CASE OF PUERPERAL PHLEBITIS CURED BY PULSATILLA.

BY

ELIZABETH JARRETT, M. D.

MRS. H., æt. thirty-three, was confined January 4, 1895, of her fifth child. Delivery normal. Patient had been under treatment some months previous for varicose condition of veins, of labia, and of limbs, especially the right. The lying-in period passed uneventfully, except for a sudden rise in pulse and temperature on the third day, disappearing on the fourth.

On the 15th, eleven days after delivery, patient's husband called to say that his wife, who was now up and about, was bothered by chills; on least motion, with severe headache. Gels. 3 was prescribed, and the patient not seen until January 19. On this day she was better, but complained of pain about the inner surface of the right knee. Examination revealed much tenderness in that region, and considerable œdema surrounding a knot of varicose veins. The inflammatory redness extended in streaks up and down the inner surface of the leg and a hardening of the internal saphenous vein, about as far as one-fourth up the thigh was made out.

Patient was put to bed, leg wrapped in heated absorbent cotton, raised several inches, and bell. 3 prescribed.

January 20—Inflammation had perceptibly extended. Internal saphenous stood out as a thick, hard cord, fully

two fingers in diameter, and marked to nearly upper third of thigh. Surrounding œdema and redness had, however, disappeared. Patient complained much of chilliness, cried over her trouble, lacked thirst, and was exceedingly sore to touch. On these symptoms, and its known action over inflammatory conditions of the veins, pulsatilla 3 was prescribed.

From January 20 to 29 patient was kept on puls. 3. The inflammation completed its course to the junction of the internal saphenous with the femoral vein. Here it stopped, and began on the second day after the administration of puls. to recede. Except for the continued chilliness, symptoms had disappeared, and the patient wished to get up.

On the 29th patient, contrary to orders, rose, washed and dressed three children, tidied her rooms, and went to bed. At 2 P. M. was attacked with severe chill, pain in right breast, cough; pulse, 108; temperature, 103°. Acon. 3 was substituted for puls. No serious trouble followed this indiscretion, but I was obliged to give bry. 3 on indications for several days. However, the gain which had been accomplished by puls. in staying the phlebitis was not lost. The inflammation about the nodulated mass at the knee was the last to disappear, as it had been the first to come, and the seat of greatest pain throughout. Patient was up and about her work February 8, only a slight hardness being felt along the line of the vein. It is my belief that circulation has been fully restored in the vessel. The entire course of the phlebitis itself was probably ten to twelve days—from January 18 or 19 to 29 or 30.

Moschus in Hysteria.—Dr. W. A. Dewey.—The patient faints from the least excitement; the hysterical spasm is ushered in by a contractive feeling about the throat; suffocation, globulus hystericus; spasms about the chest, and alternate crying and laughing.

A SYMPOSIUM UPON THE HOMEOPATHIC TREATMENT OF CHILDBIRTH.

BY

BY PROMINENT OBSTETRICIANS.

NO matter how experienced or how skilled an obstetrician a physician may be, he must constantly be brought face to face with the question: "Where does physiology end and pathology begin?" This question decided in any given case, the battle is already partly won.

I have unbounded confidence in Nature, and believe she is as often thwarted as assisted by the meddlesome physician. No matter what my case may be, or how severe, I am always comforted by the knowledge that the great majority of cases tend naturally to recovery, and would recover if properly nursed and otherwise left alone.

I believe we have a partial exception to this general rule in the class of cases under consideration, and a too confident reliance upon nature may give us cause for regret. Were pregnancy, labor, and childbed true to nature, interference on the part of the physician would perhaps be uncalled for, but in this age of degeneracy, they are so usually departures from the natural that artificial measures are demanded. I frequently find myself wondering what would have become of this or that mother or child had the confinement occurred in the days when chloroform and forceps were unknown. Almost every day we see cases that absolutely could not have been successfully delivered had artificial means not been at our disposal. Such cases must not have occurred in the days when woman was as she should be, or they are not recorded. When we see what confinement means to woman to-day, and are asked to believe what it is said once to have been, the smile of incredulity all but forces itself to our lips.

But were the whole progress of pregnancy and parturition absolutely true to nature, are we not still justifiable in using those means for relief which an advanced art has placed at our disposal? Labor is truly named, perhaps intended by God to be such; but are we to deny the woman the relief afforded by chloroform or the forceps, for instance, simply because her condition is physiological?

In the conduct of pregnancy I have sometimes prescribed macrotin and pulsatilla, a dose of each per diem for four weeks prior to expected confinement, but cannot say that such cases do better than others that have not been so prescribed for.

I have no confidence in pulsatilla, or any other remedy, to correct malposition of the fetus. Had pulsatilla the power to turn one fetus over and around in the correction of its mal-position, it might just as well be to blame for the cord being around the neck of another.

I advise a liberal diet, both in quality and quantity, drawing the line only at the so-called "longings." I believe that a woman in health will crave those things she most needs, and if not in health, remedies should be part of the regime.

I have had so little trouble with rigid os uteri that my experience in this particular is of but little value. I would, however, resort to incisions along with the indicated remedies. In one notable case of rigid os, where other means failed, and where prompt delivery was considered important, I cut through the unyielding os with a curved bistoury, and prompt delivery followed, and the recovery of the patient was, and her condition to-day is, perfect.

I do not hesitate to resort to chloroform whenever the pains seem distressing to the patient, and would not be ashamed to confess to using it in every case that came under my care. I believe, however, that it is a matter of common experience that forceps are oftener required in cases delivered under anæsthesia, but this would be no drawback.

I believe that the oftener the obstetrician uses his forceps, and the more familiar he becomes with them, the oftener will he use them. I know of no practice more satisfactory to the physician than the prompt relief to the mother, and, I may say, the greater safety to the child, afforded by the skillful use of the forceps. If the forceps did nothing more than save a few of the babies born dead with the cord around the neck, they should merit our praise for that alone.

I believe that mechanical interference here, as in diphtheria (intubation), is usually delayed until too late. When I find the head interrupted in its progress, and seemingly clear of the sacrum behind and the pubis in front, I give the cord around the neck the benefit of the doubt, and apply the forceps without hesitation.

When such a baby is born, even then almost dead, we realize what a few minutes' more delay would have meant.

I prefer the Elliot long blade forceps, but perhaps because I have used no other.

With forceps or without, I have the patient on her back.

For afterpains, gelsemium ix has always been sufficient.

The most frequent variation from normal that I have met with, following confinement, is a rapid pulse, which, as students, we are told should be markedly slow. I have so often found the pulse rapid (100-110), following confinement, that this symptom alone does not cause me much alarm.

Of fever following confinement, Lusk says, a very large proportion run an absolutely favorable course, and such every practitioner will find to be the case. I have never met with puerperal fever, but of nothing have I more horror. Still, a temperature of as much as 103° to 104° does not unnecessarily alarm me, because such as I have had have all recovered without incident. Such fevers, even if septic, are often due to only a few fragments of placenta or shreds of membrane, which will soon be absorbed. Where

the fever persisted, however, I would not hesitate to curette and wash out.

Such cases should be watched very carefully.

I would caution against intra-uterine injections where perfect drainage had been provided for beforehand, by thorough dilatation of the os. I well remember one case of very serious shock, caused by my forcing such an injection under unfavorable conditions. The patient went into collapse, which was followed, in an incredibly short time, by a temperature of 105°. I think I must have forced the injection into the fallopian tubes.

Where the child is lost, or for engorged or caked breast at any time, I use olive oil and cocoa butter (equal parts) locally, the breast pump, and belladonna, bryonia, or phytolacca, as indicated.

For a breast pump, I know of nothing more satisfactory than a quart bottle filled with hot water to expand the air, afterward emptied and applied to the nipple. As the air contracts it will cause a suction, which will gently draw the milk out.

ALLISON CLOKEY, M. D.

I FIRMLY believe that any officious meddling with nature produces *bad* results, and that, therefore, any prescribing during gestation, "if the conditions are normal," with the hopes of improving said conditions, is all wrong. In cases, however, that I have watched, or even if called and consulted within five or ten days of expected confinement, it is my custom to leave a small (1 dr.) bottle of puls. 3x, and direct the patient to take it in water (20 drops to 20 teaspoonfuls; a teaspoonful every two hours) at the first appearance of premonitory pains. I do this because I am convinced, from reading and experience, that the drug, if given a fair time to act, will cause or produce a *normal head presentation*, and *will even change*, in many cases, a breech or side presentation, to a head; it also governs the pains, and makes them, in my estimation, more regular and stronger.

I have been exceedingly fortunate in not meeting any serious variations from the normal. This I attribute largely to the puls.

I give little or no instruction as to diet, except to recommend a plain, nutritious one, with little or no wine, coffee, tea, or spices. Plenty of out-door air and exercise, and, like the Greeks of old, if possible, surround the woman with beautiful pictures, statuary, and music.

Fruit is, if ripe and sound, always of advantage. It regulates the bowels, and the fruit acids aid digestion and assimilation, while the fruit itself is a nutritious brain and body food.

I think carbolated vaseline, two to five per cent., lubricates and softens the parts, thus assisting dilatation. The carbolic acid is also a local anæsthetic to some extent.

I use no injections *before* delivery, but find hot water and Listerine of benefit *after*. It relieves congestion, is antiseptic, and governs bleeding.

In nearly all cases I use anæsthetics. I see no advantage in allowing a woman to suffer when it can be safely and easily avoided. I prefer chloroform, because of its being well borne on such occasions, and of its prompt action.

My method of giving chloroform is, perhaps, peculiar. I take a tumbler and put some absorbent cotton in it, then I pour chloroform (Squibb's) on it, and turn the tumbler upside down on a plate or saucer. At the beginning of a pain, I let the patient take four or five deep inhalations, which are sufficient to "take the edge off" the pain, then the glass is removed. By this means there is no entire or complete unconsciousness, the quantity of the drug absorbed is also small, and yet the pains are rendered comparatively easy to bear.

In introducing the hand for extraction or examination, the preparation is *absolute cleanliness*. Nail-brush, antiseptic soap, hot water, and often Listerine, being used. I wash the hand and arm as high up as the elbow, and use

carbolated vaseline as a lubricant. I seldom use forceps. I should think in not over five per cent. of my cases.

I have always used the Simpson (Lusk modification), and found they answered every purpose. I must acknowledge I have always intended to have a "traction attachment" added to them, but up to date have not done so.

I give 20 to 40 minims of fl. e. ergot immediately *after* the removal of the placenta, and in half an hour place 20 drops of *θ* cimicif. rac. in half a glass of water, and give a teaspoonful every half hour for six hours, then every hour. This method has answered admirably, and I *rarely* hear of afterpain or relaxing uterus. In case of death of the child, dry up the milk as soon as possible; use camphor externally and strawberry-leaf tea internally. Of course, if the milk has formed, the breasts must be relieved of it by use of a breast-pump until dried up. In case of cake breast, I use careful and *very gentle* rubbing of the breasts with hot melted lard, which has always proved satisfactory.

It is but just to my dear old preceptor, Dr. Elias C. Price of Baltimore, Md., to say that my method of using chloroform in confinement was taught me by him, and I have never seen an improvement on it. Another item that may be of interest is, if consulted in time, I never have sore breasts or nipples. I have the nipples bathed from the fifth to the seventh month with whisky and alum, half a pint whisky and a teaspoonful of alum. Bathe frequently. After the seventh month I tan the nipples with tannic acid, glycerin, and water. This turns the nipples black, and of an india rubber-like consistency, so that there is no trouble with them. If properly attended to, it is a guarantee against cracked or sore nipples.

HAVARD LINDLEY, M. D.

IF no condition existed demanding a remedy, I should not prescribe on general principles. However, there are few cases not requiring some guidance and attention. The most common variations I find are :

The reflex symptoms, as affecting the stomach, commonly known as "morning sickness," constipation.

Each individual case requires individual attention as to diet, as habits, circumstances, and former history each has its weight in the matter, I think.

If patient is fleshy, in good condition physically in every way, good constitution, I have found fruit and vegetables (and less meat) to be most useful. To promote dilatation, I give, if vigor and strength are lacking, *nux vom.*; if there is rigidity from a general firmness of muscular fiber, gels.

I use no mechanical means, but apply warm water compresses externally and warm water thrown into vagina.

I have found also great help from the use of lard vaseline, and the latter, mixed (equal parts) with glycerin, warming, relaxing, and effectual (should be used warm).

I use no anæsthetics, except in serious cases, only about two per cent. My preference is for ether; it acts better than chloroform it is thought by all who administer anæsthetics in Boston.

In tedious cases I sustain patient, and wait as long as, in the nature of the case, it is safe. I give food equal to support strength during entire labor. If ejected, it usually hastens labor.

I use forceps only in cases of obstinate uterine inertia, or where conditions demanded speedy delivery. I prefer our Codman & Shurtleff medium forceps, and deliver with patient in dorsal position.

I rely upon *chamomilla* for afterpains, and also apply a compress of one teaspoonful of *arnica*, with twenty of rum. A linen handkerchief wrung from this decoction quiets often, and is friendly to the situation in every way.

If, for any reason, the breast is not to be used—death of child, or inability of child to nurse, absence of proper nipples—do not touch the breast, except to swathe closely, passing binder around under the arms, and entirely holding the breast, allowing as little milk-making material in the form of drink as possible.

If, from excessive supply, or from a cold or any cause, there is "cake in the breast," a compress of cold water, diachylon plaster, an old-time remedy, but good as new, acts kindly. I have never had a case since bandaging or swathing the breasts at once.

J. K. CULVER, M. D.

[F engaged in advance of expected birth, I do not prescribe if the condition is normal. But to find a perfectly normal woman in these days is, to say the least, a rare occurrence. I generally suggest an examination of the vagina, with the object of ascertaining measurements of the pelvis, in case malformation should be found. The dread of such examinations may be overcome by explaining your object to the husband and mother of your patient.

The variation from normal condition most generally met may arise from :

Hereditary Causes.—Scrofula, phthisis, and syphilis are no doubt the principal causes which weaken or impair the constitution or vital power of a large number of our women. When I say our women, I mean in a general sense, as our women in Ottawa are quite as fair specimens of health as can be found anywhere; but there are frequent exceptions where pregnancy, with its attendant discomforts of body and anxiety of mind, day and night for months, tends, in those who are not free from antecedent causes, to lessen vitality, and they are thus badly prepared for parturition. Dystocia, from the above causes, I find most frequent in my practice. In a large number of these cases patience is a very desirable virtue on the part of the attendant. The obstetrician who "cannot wait" in such cases until nature affords evidence of her inability to terminate the labor, should not undertake such work. The experienced physician will know when to render assistance in such an emergency, either by medicine or forceps, as the case may be. Simple inertia may be re-

lieved by the appropriate remedy, which must be found to cover the totality of the case—acon., bell., actea, puls., etc. Do not use ergot, or you will destroy the child. In the event of the cord being around the neck, remedies will avail but little. If the head has escaped the os, I use the forceps and hasten delivery, in order to save the child. How do you know that the cord is around the neck? If the head, during each pain, advances only to the same distance, and then recedes as before, the pains being strong the pelvis normal, and the condition unchanged for one or two hours, the presumption is reasonable that the cord may be around the neck, preventing advance.

I advise the free use of fruit, but not exclusive use, as fruits do not contain all the elements required for normal nutrition.

To promote dilatation, when the os is hot and dry, the patient feverish, I use aconite; spasmodic rigidity of the os and cervix, bell., and if no improvement, use cerate of bell. locally to os. Wait a while, and if no progress, warm vaginal injections. Digital traction may be of some use, but too frequent introduction of the finger is objectionable, unless great cleanliness is observed.

I always carry chloroform in my bag, but do not use it in all cases. Do not use it in strong, healthy women, with normal labor. In neurotic cases, those who bear pain badly, and who are not of a hemorrhagic diathesis, a mild use of it is desirable. In such cases it generally increases the force of the pain, but in other cases it will arrest the pains, and, if given too freely, may give rise to hemorrhage. I prefer chloroform, because it acts quicker, passes off sooner, and need not be given to excess.

The hand should not be introduced into the womb unless the hand be a *small one*, and then only when the os is sufficiently dilated to admit two or three fingers at a time, and gradually forced into the womb. The hand, before attempting the operation, should of course be clean and disinfected, then oiled.

I use Robertson forceps in perhaps fifteen per cent. of my cases. In eclampsia I prefer using the forceps, if the case will admit of it—the os sufficiently dilated and the presentation favorable. I have often felt thankful for the aid of this instrument, which, if judiciously used, is a great blessing to a woman in this her hour of distress. Using the forceps too soon is equally an error of judgment with using them too late, or not soon enough.

For afterpains, I first make sure that the womb is entirely emptied of its contents. I use no bandage; do not leave the patient for one hour after the completion of labor. I always leave some *arn.* to be taken one or two hours apart, and if the afterpains require attention on the next call, *puls.* or *viburnum*, if indicated, will usually meet the case.

In case child is lost, I do not attempt to control the secretion of milk earlier than eight or ten days. I allow nature to have free course, keeping the breast emptied by pump, puppy, or any efficient method, until the usual rush of milk has ceased. I have seen serious metastasis follow “scattering of the milk.” If the breast becomes caked I use hot water applications, and administer the remedy indicated generally as follows: *acon.*, *bell.*, *phyto.*, or *phos.* If matter forms, support the gland or glands, usually *hep.*, *mer.*, or *silicea*. I use the lance early if indicated. I wish to add here that I have had very good results from prenatal treatment, where previously the children were lost.

GEORGE LOGAN, M. D.

IF engaged in advance of expected birth I do *not* prescribe if condition is normal.

Can't say I meet with a great variety of abnormal conditions. The morning sickness is the difficulty I generally meet, for which I try to give the indicated remedy; meet with good success.

Instructions as to diet are generally confined to those

with slight build, narrow pelvis, especially if they show any tendency to take on much flesh, when a vegetable and fruit diet is recommended, that the fetus may not grow too large and the bones become too hard; otherwise I usually allow them to eat all ordinary foods.

The remedies most used in promoting dilatation are: *cimicif.*, *nux vom.*, *puls.*, *kali carb.*, *bell.*, *gel.*, *cham.*, *caul.*, *arn.*, each used according to their well-known indications, and about in the above order.

Have had no occasion to use mechanical means or local applications or injections.

Anæsthesia is used but rarely, mostly in nervous cases or where pains seem to be too severe to be borne easily; also in instrumental cases, but never anything near to full anæsthesia.

The anæsthetic used is *chloroform* always, because it acts quickly, two or three inhalations only being used at a time. Probably the teachings of the late Professor Dunster, University of Michigan, influenced me more than anything else. I certainly have always been pleased with its action.

In manual extraction I have waited until satisfied from position of fetus and contractions of uterus it cannot be born without, or the strength of the patient is fast failing. My experience only extends thus far in such cases.

Forceps are used. Do not remember the per cent. of cases, and records not at hand, but from memory would say five to eight per cent. Have always used the Elliot long, Tiemann's make; they have always given me good satisfaction. As to method of delivery, I prefer the American.

The remedies used for afterpains are confined mostly to *arn.* or *gel.*; if not sufficient, am apt to find it in *cimicif.*, *cham.*, *puls.*, *kali carb.*, rarely some other remedy, always used according to their indications.

In case child is lost, my instructions are to allow lactation to proceed as if the child had lived, until the same is fully

established, then only having sufficient milk drawn to prevent over-distention, and the milk soon dries up.

To resolve cake breast I order hot lard to be well-rubbed into the breasts. If not better in twenty-four hours I then order phytolacca cerate, at the same time give the indicated remedy if I can.

L. B. RICHARDS, M. D.

PREPARATORY TREATMENT DURING GESTATION.

Deductions from an investigation made to ascertain how to meet properly and efficiently the more common departures from a natural physiological condition that occasion suffering and danger.

Qy. What variation from normal condition most general to your practice, and how met?

A.—General debility and constipation; homeopathic remedies, diet, and exercise—J. Kent Sandos. Constipation, which taxes one's resources to the utmost. I can give no one remedy which has any special application. Exercise, fruits in season, careful attention to wants of nature, injections, gluten and glycerin suppositories, and sometimes laxatives, like cascara sagrada, must be resorted to—S. H. Knight, M. D. Constipation, treated by regulating diet; indicated remedy, fruit, water in abundance—F. P. Batchelder, M. D. Abuminuria, indigestion, sleeplessness—A. Berghaus, M. D. Indigestion first, and thereafter lesions of the nervous system, which I treat strictly in accordance with Oganon and Chronic Diseases—E. E. Reininger, M. D. Albuminuria; by the indicated remedy, usually merc. cor., ars., apis—C. T. Canfield, M. D. Albuminuria; diet, regimen, merc. cor., ars., apis, phos.—Wm. D. Foster, M. D. Nausea; best remedied by homeopathic remedy; this failing, by dilatation of the cervix, or local use of arg. nit., 1x to os—R. N. Foster, M. D. Morning sickness; by the

indicated remedy, unless cause is mechanical, then correct it—G. Forrest Martin. Albuminuria, disorders of digestion and locomotion. These are usually met by remedies—W. M. Bailey, M. D. Constipation in the later stages; recommend warm water injections, sometimes with the addition of glycerin; if very obstinate an occasional cathartic—Kate L. Hickox, M. D. Most often from pressure affecting the bladder. This is often relieved by bandaging, but better by adhesive straps $1\frac{1}{2}$ or 2 inches wide, placing the patient on her back; attach one end of the plaster on abdomen, low down near center, carrying it up just over and near ilium, well on to the back, but not high enough to be uncomfortable. It relieves the pressure on the bladder. Recently a lady wrote me: "My bladder wants to thank you for the relief"—A. W. Cushing, M. D. Impaired nutrition—C. G. Higbee, M. D. Nausea, heartburn, too lively motions of fetus; indicated remedy—A. J. Smith, M. D. Reflex gastric and nervous conditions met by homeopathic remedies—James M. Ward, M. D.

B.—Breech presentation, albuminuria, prompt delivery and indicated remedy—O. A. Watson, M. D. Tedious labors, wait—S. J. Jones, M. D. If first and second positions are considered normal, the occiput posterior is met most frequently, then comes breech presentations—A. L. Fisher, M. D. Faulty positions met with pulsatilla. Ineffective pains; when homeopathic remedy fails, forceps—Wm. T. Tyler, M. D. Probably foot presentation, bring down other foot and body; apply forceps to head—L. Young, M. D. Posterior occipital presentation; nothing, unless albuminuria, met by internal medication—Lamson Allen, M. D.

APPLICATION OF THE FORCEPS.*

TRANSLATED BYB. F. UNDERWOOD, M. D.

*(Continued from p. 180.)*SECOND BRANCH, RIGHT BRANCH, NOTCHED—GUIDED BY
THE LEFT HAND—HELD IN THE RIGHT HAND.

Introduction of the guiding hand.—The second guiding hand, the left, well oiled upon both surfaces, operates over the first branch which rests upon the vulvar fourchette and which is held in place by an attentive assistant. Like the first hand the four fingers will be introduced, leaving the thumb upon the outside. It is introduced as deeply as possible upon the side and backward, between the coccyx and the ischium, in the region of the sacro-sciatic ligament, until the commissure of the thumb arrests the penetration. Shortly after their introduction the fingers will encounter the hair-covered head of the fetus, with which the fingers should be kept constantly in contact. The vulva once overcome, resist but slightly the metacarpo-phalangeal articulation; but to enter in the inferior strait, that is to say, to pass the fingers between the head and the powerful bridle of the coccyx, will still require some force.

It will be remembered that it is possible, and necessary, to penetrate into the cavity the length of the fingers as far as the heads of the metacarpal bones. At this depth and with the care taken that the fingers have not lost immediate contact with the fetal parts, it is certain that they have not passed outside of the orifice, but have penetrated into the uterus.

Properly introduced, the hand occupies the corresponding half of the sacro-sciatic concavity, to which it presents

* From the French of Professor Farabeuf and Dr. Varnier.

the dorsal surface at an oblique angle, toward the floor and on the side. The palmar surface embraces the parieto-frontal region; the little finger following almost the grand axis of the vertex; the middle and ring fingers following the convexity of the corresponding frontal eminence; the index finger, passing more easily the temple, is impeded by the parietal eminence, more than the first hand, in being pressed sufficiently forward to feel the ear; the head being always thrown somewhat back by the thickness and rigidity of the first blade.

In *résumé*, in introducing the second blade, the axis of the guiding hand—axis in which the blade is introduced—does not correspond to the line of good taking, the parietomalar line, because the hand cannot be passed far enough forward. The blade once introduced in the axis of the hand, that is to say, too far down or on the contrary too far in front, should and may, on account of its thinness, be carried directly upon the side opposite to the first blade, upon the parietal eminence and the cheek.

Presentation, introduction, and placing of the blade.—The guiding hand, the left, being placed, the right hand, which has previously been cleansed from the oil which renders it slippery, takes the handle (notched) of the blade and presents the beak to the vulva. The flat surface of the back of the beak being placed in the palm of the guiding hand. It should be remembered that the blade, image of the hand, should glide in contact with, and in the axis of, that hand; directing, therefore, the axis of the blade in the axis of the guiding hand. To do this, the right hand is held high with the hook of the handle not far from the median plane, but toward the left of the mother, and ready to be brought down obliquely, and outside of the radial border of the left forearm. It is to be softly pushed; it will enter perhaps more slowly than the first blade. Watch therefore attentively that it follows closely the direction of the guiding hand, to which it should be closely

applied by the edges of the fenestra, and above all by the back of the beak.

Observe, in proportion as the blade disappears in the vagina, the right hand, which holds the handle, is considerably lowered with a little obliquity toward the left. The wrist, which was slightly to the left of the mother, is brought back to the median line and lowered, passing even to the right, for it follows a line parallel to the oblique meridian on which it pushes the blade exactly adapted to the cephalic ovoid.

Figure 17. Summit, position directly occipito-pubic. Introduction and placing of the second blade, the right, the

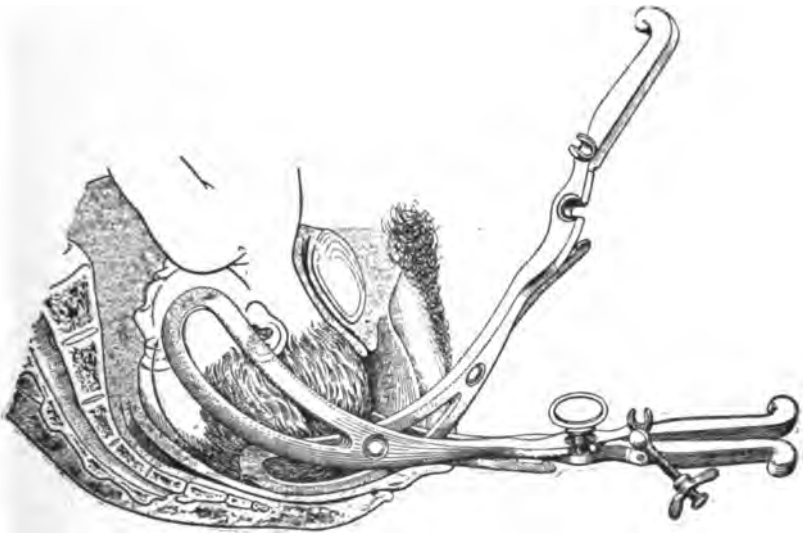


FIG. 17.

guiding hand, not figured.—The right branch, at first upright, has the blade introduced backward and to the right, following the arrow, as far as the frontal eminence. Then, by a triple movement of lowering, removal, and turning imposed upon the hook, the blade passes on the parietomalar lines; the handle crossing that of the first branch,

the notch upon the pivot. It remains only to screw down the pivot and fasten the blades together.

The guiding hand feels and judges the introduction of the blade ; it is this hand which commands the hand which controls the handle to accelerate or lessen the movement.

The penetration is sufficient, for the time, when the beak passes the ends of the fingers, and in consequence is well fitted to the frontal eminence. At this time, the fenestra will have entirely disappeared within the vagina and will be well applied as regards the length of the cephalic ovoid ; but, like the guiding hand, it is too low, not enough on the side.

To bring the fenestra upon the parietal eminence and the cheek (fig. 17), it is necessary to rely upon the action of the hand only which controls the handle. This is still held high to the right of the median maternal plane, the hook directed upward and to the left of the mother. Simultaneously lower the handle to force inward and to raise the beak ; carry it toward the left thigh to the end that the blade may be insinuated to the right, to the side of the head ; by a light turn advance the blade. The twisting consists in raising the hook obliquely, lowering little by little its extremity, and stopping it turned directly toward the left of the mother. This triple action causes the blade to pass beyond the guiding hand, and insinuate itself in front of the index finger, in the line of good taking, altogether on the side. This movement is at once a movement of the blade toward the front, and a complement of penetration ; it will be noticed that the beak makes more way than the neck, in a manner that the final placing is made by a light spiral movement which the guiding hand recognizes, sometimes direct, and always favors by retiring in proportion to its accomplishment. Naturally, the second branch, when properly placed, crosses the first. When the guiding hand is removed (that is the left hand), it grasps the handle of the left

branch which rests upon and crosses the right branch, which is held always to the right.

EXTRACTION.

What remains to be done with the forceps to terminate labor?

It remains to bring the head into the axis of the inferior strait in such a manner as to complete its engagement in that strait—that is to say, to draw it toward you, and a little downward toward the knees, until the base of the occiput corresponds exactly to the level of the inferior border of the symphysis.

Then, while still continuing traction, deflexion of the head is made, in order to permit the forehead and the face to disengage at the level of the coccyx, to pass the distended soft basin, and to emerge in front of the vulvar fourchette.

Therefore, if the forceps of Levret are used, it will be remembered that to make traction in the proper direction the forceps are not to be held by the handles, but by grasping them above; in one, for example, by the full left hand (hand of traction) between the pivot and the vulva, as near as possible to the blades, and the right hand (hand of constriction and of deflexion) near to the extremities of the handles below, the right hand maintaining constantly the hold and supporting the hooks, while the left, drawing or holding in the line of the axis of the blades, draws them, and in the head, a little below the horizontal, in the axis of the inferior strait.

Then the handles are gradually raised while the traction is continued, horizontal at first, but becoming more and more upward. The right hand is therefore elevated according to the progress of the head, so that at the end it almost touches the abdomen of the mother. And the hand of traction, drawing always in the axis of the blades, follows the movement, but at a distance, with the object of

preserving the angle which is made by the forearm with the handles of the forceps.

If the forceps of Tarnier are employed, traction is made with one hand only, on the transverse handle, upon the movable rods attached to the blades, maintaining always the bend at one centimeter below the branches of the forceps. Traction is thus always made in the axis; the head is not given the wrong direction, but, adapting itself to the pelvic genital passage, imposes upon the handles of the forceps the movements which guide the traction. It will be noticed that as fast, and in measure as the head progresses and is deflected, the ends of the handles, almost horizontal at first, are raised more and more, becoming, when the chin emerges from the posterior commissure, nearly parallel with the abdomen of the mother. And finally, the last traction should be made almost directly upward. It is therefore well at that time to seize with the full hand the branches of traction and the branches of prehension, to accomplish the degagement, as with the forceps of Levret.

Whatever may be the forceps used, traction should be lightly made, continuous, and without giving too much attention to the perineum, until the vertex, which the finger may feel as it passed the thinned pelvic floor, reaches the posterior commissure of the vulva. Then, holding the forceps near the center in the right hand, the instrument will be used to hold the head in position, to moderate its deflexion, and to prevent its too quick expulsion, before the vulva has had time to dilate sufficiently to permit of its passage without injury of the maximum circumference—the sub-occipito frontal. While the left thumb, pressing closely in front and behind on the region of the vertex, accomplishes the same purpose, the retarding of the head, the forceps are moved lightly to the right and to the left for the purpose of preparing and bringing out successively the parietal eminences. When this has been

accomplished, the perineum will retire of itself backward, uncovering the forehead and the face, unless care be taken to greatly augment the deflexion, which, when the emergence of the head is too precipitate, injures so often the fourchette. It is then only that we counsel the removal of the instrument, whose thinness does not notably augment the volume of the head.

Meanwhile the majority of authors hold that, principally with primiparas, it is preferable to remove the forceps as soon as the parietal eminences are at the vulva, before the engagement of the grand circumference, which it is left for the utero-abdominal forces to complete.

In this case, it is sufficient, at an opportune time, to loosen the pivot and unlock the forceps, and remove the right branch, retiring the right blade by raising the handle and setting it toward the left thigh of the mother.

The left branch is removed by a similar movement of the handle toward the right thigh of the mother.

A NEW METHOD FOR IMMEDIATE RESTORATION OF THE PERINEUM AFTER LABOR.

BY

E. VONDERGOLTZ, M. D.

DIFFERENT trials and failures in attempting an always sure restoration of the perineum led me to manipulate in quite another and more successful manner. To describe this is the subject of the following article :

English and German authors say, if the *accoucheur* has not sufficient ability, the operation for complete laceration should be postponed until a later period. My failures having disheartened me, I thought it wise to follow their counsel ; but then, I felt compelled, by the unfortunate state of

suffering patient and for fear of sepsis, to try everything to overcome those shortcomings of mine.

I formerly applied interrupted rectal, vaginal, and perineal sutures; now I follow another way, and I must state that during the past four years I had no failure.

The patient is placed on the table in the lithotomy position on a perineal pad; an anæsthetic is given; the genitals are cleaned and shaved; the rectum and vagina are washed, the first especially, as far as the complete laceration goes; a tampon is inserted into the vagina to prevent the soiling of the field of operation with the flow of blood from the uterus; all ruggedness is trimmed from the surface of the lacerated parts, and every bleeding point is ligated.

Then I begin to unite the tear, applying a continuous silkworm suture, commencing at the highest point in the rectum, going down to the sphincter ani.

This is the first layer. I go on with layer by layer, until I finally close the last gaping of the tear with interrupted sutures.

One of the chief considerations must be the selection of the needles for the first and last layer. I select a curved intestine needle (Hagedorn), of so small a size that the silkworm thread will entirely fill the perforation made by it, and a resulting suppuration, either from the stitch-holes in the rectum, or from the vagina, will be almost impossible.

This *modus operandi* is only possible in that position, which will give the best access to the genitals, therefore I had to try several patterns of leg-holders, until I found Dr. Webohl's the most convenient for my purpose.

During the entire operation, which takes but a few minutes, the surface of the operation must be rinsed, by a nurse or an assistant, with an antiseptic solution, so that no clot of blood will be detained; for by this procedure the immediate closing of one suture is completed by the consecutive one.

Finally, the field of operation is sprinkled with sterilized

bismuthum subnitricum or iodoform, to prevent any possible access of any endangering influence.

The after-treatment is nothing more than in any ordinary confinement.

Up to the present it has been my custom to leave these superficial sutures *in situ* four to six weeks, as most patients do not feel incommoded by them, thus giving me a positive chance to see the final result.

In the same manner as described, the perineal and vaginal tears of the so-called first and second degree are closed. Here only the attention must be directed to the first layer, so that no receptaculum for blood, with consecutive suppuration, will be originated by an insufficient and uneven suture.

Book Reviews.

NURSING IN ABDOMINAL SURGERY AND DISEASES OF WOMEN. By ANNA M. FULLERTON, M. D., Physician in Charge of, and Obstetrician and Gynecologist to, the Woman's Hospital of Philadelphia. 12mo. 284 pages. Illustrated. Cloth, \$1.50.

A HANDBOOK OF OBSTETRICAL NURSING. By ANNA M. FULLERTON, M. D., Demonstrator of Obstetrics in the Woman's Medical College of Pennsylvania, etc. 12mo. Cloth, \$1.25. Philadelphia: P. Blakiston, Son & Co.

These two works upon allied subjects,—obstetrical nursing and nursing in abdominal surgery,—while intended for the instruction and guidance of nurses, will be found of value and interest to the physician who appreciates the importance of a thorough understanding of the many little details of scientific nursing. The methods advocated are those observed in the practical work of the Maternity and Woman's Hospital of Philadelphia. In these bacteriological days a knowledge of antiseptics and antiseptics is as essential to the nurse as to the physician, and upon these points these books are thorough and complete. They are plain, practical, and comprehensive books, which the physician can

recommend, with the assurance that a familiarity with the methods advocated, on the part of the nurse, will lighten his labors and increase the prospects of a successful outcome to his cases.

A BEE LINE REPERTORY. By STACY JONES, M. D. Flexible leather, \$1.00. Philadelphia : Boericke & Tafel. 1895.

This handy volume, a book for the pocket, is, as the name suggests, a short cut to the remedy for a diseased condition. A short extract will, perhaps, better illustrate the scope and character of the work than a page of description : "Cold in the head, chilly stage, camph.; fever, acon. ; flowing nose, sneezing, watery eyes, cepa., euph. ; racking cough, cepa., 2x, merc., sang., 2x ; thick mucus, merc., iod." The character of the types used greatly facilitates the finding of the remedy.

A SYSTEM OF LEGAL MEDICINE. A complete Work of Reference for Medical and Legal Practitioners. By ALLAN McLANE HAMILTON, M. D., assisted by LAWRENCE GODKIN, Esq., with the collaboration of many members of the medical and legal profession. New York : E. B. Treat, 5 Cooper Union. Vol. I. 650 pages. \$5.50 and \$6.50.

The list of contributors to this work includes the names of thirty of the most distinguished writers and authorities upon medical jurisprudence in America, with upward of five thousand citations and cases, so that it is in a measure a consensus of the medical and legal professions in the United States—an exposition of legal medicine in this country to-day.

Until the appearance of this book there had been no standard American work upon medical jurisprudence, it being the custom, of a necessity, to consult and refer to foreign books, which, being written for other countries, were in many respects not applicable to our methods of procedure, nor in conformity with legal usage in this country. An American treatise is therefore timely and should receive a hearty welcome from both the medical and legal profession. As a book of reference it is indispensable to the specialist, and hardly less so to the general practitioner, who is liable at any time to be involved in the intricacies of the law. The work has a judicial and impartial tone, which will commend it to those who are seeking information upon legal points. A

feature of much value is the extensive and modern bibliography, so that the judge, the lawyer in his cases, the physician on the stand, the physician as an examiner, the general practitioner and the specialist, all will find in these volumes the data which will enable them better to perform their respective duties.

The photographic reproductions from nature and other drawings aid greatly in making clear the conditions and positions described, the chromo-lithographs being more than usually well done.

THE PRACTICE OF MEDICINE. By WM. C. GOODNO, M. D., Professor of Practice of Medicine in the Hahnemann Medical College of Philadelphia, Physician to the Hahnemann Hospital, etc. With sections on Diseases of the Nervous System, by CLARENCE BARTLETT, M. D., Lecturer on Nervous and Mental Diseases in the Hahnemann Medical College of Philadelphia; Senior Neurologist to the Hahnemann Hospital, etc. Volume I. Specific Infectious Diseases and Diseases of the Nervous System. Philadelphia: Hahnemann Press. 1894.

In the preface to this handsome volume—a witty preface, if brevity be, as Shakspeare says, the soul of wit—the author says that in the preparation of this work he has endeavored to write from a thoroughly practical standpoint. A careful study of the book shows the endeavor to have been completely successful, and that in “The Practice of Medicine” we have a work to which the physician can refer with the certainty of finding the information which is of practical value in the treatment of disease. Professor Goodno is comprehensive and thorough in the treatment of his subject, taking up a disease and tracing it through its different stages, beginning with its history and ending with its appropriate treatment. Although, as the author says, it is not a treatise upon therapeutics, he, nevertheless, slights no means, neglects no measures, omits no remedy which may prove of value in the cure of disease, or of checking the course of fatal maladies. The indications for the homeopathic remedies are concise and clear-cut, gleaned from the author’s abundant experience, and not merely transferred from *materia medica*.

Objections have been made to the book by a few critics, on the ground that it was too homeopathic for an old school book, and

too allopathic for a homeopathic work ; an objection which examination fails to substantiate. A practice of medicine which failed to mention and consider adjuvants and auxiliary methods of treatment would not deserve the name ; and a physician who is not familiar with such methods, however infrequently he may employ them, is sadly handicapped. The book is thoroughly homeopathic, and a credit to our school.

The second section of the book, Diseases of the Nervous System, is the work of Dr. Clarence Bartlett, and is a masterly exposition of the subject. Dr. Bartlett has made a specialty of nervous diseases, and his work has given him a familiarity with the subject which is apparent all through. It is the best homeopathic *résumé* of the subject that has appeared ; for the fact that it is thoroughly homeopathic goes without saying. Dr. Bartlett is also to be credited with the article on syphilis.

SUGGESTIONS ON URINARY ANALYSIS. By J. P. SUTHERLAND, M. D. Otis Clapp & Son, Boston.

This little work gives, in concise and practical form, the various methods of urinary analysis, useful to the general practitioner in making a correct diagnosis in cases of suspected renal disease. It is intended for use in connection with Messrs. Otis Clapp & Son's urinary analysis case, a piece of furniture which should have a place in every physician's office. With imperfect apparatus, the examination of the urine, in obscure cases of disease, is not made as frequently as it should be, while with such an outfit as this there is a constant incentive to the work, and the case is a handsome addition to the office.

ESSENTIALS OF HOMEOPATHIC THERAPEUTICS. Being a Quiz Compend upon the Applications of Homeopathic Remedies to Diseased States. A Companion to the Essentials of Homeopathic Materia Medica. Arranged and compiled especially for the use of Students of Medicine. By W. A. DEWEY, M. D. 266 pages. Cloth, \$1.50. Flexible leather, \$1.75. Philadelphia : Boericke & Tafel. 1895.

Although compiled ostensibly for students, this, the latest of Dr. Dewey's books, will, doubtless, meet with a cordial reception from the practitioner who is alert for knowledge, and who will find in this a skillful presentation of the essential of homeopathic therapeutics. Under the heading of the various diseased con-

ditions the guiding symptoms of the principal remedies used in the treatment of that condition are succinctly and graphically given, so that he who runs may read. Thus, in less than three pages, the salient indications for *apis*, *arsenicum*, *kali bi.*, *kali per.*, *ailanthus*, *baptisia*, *bromine*, *lac. can.*, *lachesis*, *merc. cyan.*, *lycopodium*, *muratic acid*, *nitric acid*, and *phytolacca* in *diphtheria* are given, and their characteristic differences shown. It is the best book on homeopathic therapeutics we have seen, and thoroughly does away with the idea that *materia medica* is a dry study.

THE UNIVERSAL HOMEOPATHIC ANNUAL OF 1894. A yearly report of all the Homeopathic Literature throughout the world, and a review of Allopathic works interesting to Homeopathy. Edited by FRANCOIS CARTIER, M. D., Paris, France, with the collaboration of many other physicians. 547 pages. Cloth, \$3.00. Paris : Dr. F. Cartier, 18 Rue Vignon. 1895.

An annual review like this of homeopathic literature possesses a permanent value which is lacking in the similar productions of the old school, for the truths of homeopathy are the same to-day as they were yesterday, or a decade ago, while the accepted doctrine of the allopathic school varies from day to day, and last year's methods are now flat, stale, and unprofitable. The selections in this annual have been judiciously made from over fifty homeopathic journals,—English, French, German, Spanish, Italian, Russian, Dutch, and Danish,—and give a very complete review of the year. The department of gynecology and obstetrics was in charge of Dr. George Burford, and that of children's diseases of Dr. Alphonse Teste. The former occupies forty-three pages, the latter twenty-four, and numerous other extracts upon these subjects will be found under other heads. The reasonable price of the book, and its undoubted value, should secure for it a large sale.

THE THERAPEUTIC APPLICATIONS OF PEROXIDE OF HYDROGEN (MEDICINAL), GLYCOZONE, AND HYDROZONE. By CHARLES MARCHAND, chemist. Ninth edition. New York : Drexel Co., 28 Prince Street.

This book of 200 pages contains all information on the subject, with reprints of elaborate articles by leading contributors to medical literature. The publishers mail a copy of this book free on request.

Materia Medica.

Tarantula in Chorea.—Dr. M. Jousset.—Tarantula is the remedy most frequently indicated in the common form. It is indicated by the choreac movements, and paralytic complications are not a contra-indication.

Chelidonium in Measles.—Dr. T. S. Hoyne.—Capillary bronchitis is very often a complication of measles. Now, if you remember that chelidonium covers these conditions in a vast majority of these cases, you will have but little trouble in their treatment.

Sabul Serrulata in Pelvic Congestion.—Dr. E. C. Price, Med. Vis.—Sabul serrulata is a good remedy in pelvic congestion. I use it in doses of ten drops, every two hours, of the tincture in peritonitis, and have had successful results even where complicated with cellulitis.

Cantharis in Vomiting of Pregnancy.—Dr. J. H. Smith.—Cantharis is of use where the nausea is excessive, with reflex of strangury, and vomiting of membranous flakes, very acute pain in the epigastrium referable to the bladder; slight pressure produces agony, and even convulsions.

Zinc in Meningitis.—Dr. T. F. Allen.—Zincum is indicated in the subacute form of meningitis, especially if tubercular, or from suppressed eruptions; there is little or no fever, marked twitchings and jerkings, and usually hyperæsthesia of all the senses and skin. It seems to act best in about the 6x trituration.

Platina in Hemorrhage.—Dr. W. A. Yingling.—Dark, painless hemorrhage, clots hard and black, mixed with fluid blood, passing away in one thick, black tarry mass. Pain in the back extending into both groins, and excessive sensibility of the genitals. Sensation (with flowing) as if the body were growing larger in every direction.

Asafetida in Leucorrhœa.—C. B. Payne, Med. Av.—Profuse, greenish leucorrhœa, with swelling and inflammation of the

vulva, also labor-like pains in the uterine region, with cutting sensations and bearing down.

Sharp, sticking pains extending from within outwardly.

Twitching in the muscles of the extremities.

Iodine in Leucorrhœa.—Dr. L. C. McElwer, St. Louis Jour. of Hom.—Thick yellow leucorrhœa, and so acrid and corrosive that it will eat holes through the very linen, and is many times accompanied by right ovarian inflammation, and induration of the uterine cervix (carb. an., sep.), and dwindling and flabbiness of the mammæ, with sometimes blue-red nodosities of their exterior.

Iodine in Cough.—Iodine resembles spongia in its therapeutic action. In children with black eyes iodine is preferable; in children with blue eyes, spongia. The iodine cough is moist, but harsh; the spongia—dry, barking, rough, with suffocation spells. Spongia is useful (after aconite) at the beginning of croupous inflammation; iodine when the membrane is extensive, with jerking breathing.

Palladium in Ovarian Pains.—Dr. A. R. McMichael, Hahn. Mon.—Induration and swelling of right ovary, with soreness and shooting pains from navel to pelvis. Heavy weight in pelvis. Better lying on left side, rubbing, worse from mental agitation, motion, and standing; sharp, knife-like pains in the uterus which are better after stool. Menstruation in nursing women, leucorrhœa, transparent, jelly-like discharge worse before and after.

Mitchella Repens in Menstrual Disorders.—Mitchella repens is astringent, diuretic, and parturifacient. It also favors the occurrence of menstruation, and is an excellent remedy in the treatment of dysmenorrhœa and menorrhagia. The characteristic pains of the disorder diminish in intensity and disappear completely under its use. It is also of use in colic, and has been found peculiarly efficacious in atony of the female generative organs and in leucorrhœa.

Bryonia in Pneumonia.—Dr. J. J. Shaw, N. E. Med. Gaz.—Hughes claims that he can abort croupous pneumonia with it, but he uses the first decimal dilution. From my own experience I believe it has that power, and I look upon it as equally valuable

in the laryngitis of childhood, where it may be relied upon to prevent the formation of membrane. I wish I could say as much of diphtheritic laryngitis. To get the best results, I believe it must be used not higher than the first decimal.

Argentum Nitrate in Diseases of Women.—Dr. M. A. Custis, Med. Vis.—Resembles cantharides, and is useful when that remedy fails. Incontinence of urine at night; the metrorrhagia at the change of life; the prolapsus uteri, with backache and weakness of the lower limbs. Prolapsus uteri, with ulceration of the os and cervix. Metrorrhagia, with pain in the region of the ovaries, extending into sacrum and thighs; with cutting pains in the right ovarian region; with nervous erethism at the change of life; also in young widows and those who have borne no children.

Æthusa Cynapium in Indigestion of Infants.—When you see a baby that is in a hurry to vomit its milk, which will be curdled, sometimes large and shaped like a banana; that may have a greenish yellow vomit, or may have a diarrhea of undigested food; that has nervous symptoms that verge on spasms; that jumps at every little noise; that has the thumbs turned in during spasms; that has red face and locked jaws after spasm wears off; that has the eyes looking downward during the spasm; that is sleepy most of the time; that is feeble and thirsty, then you want to prescribe æthusa cynapium.

Symphoricarpus in Nausea of Pregnancy.—Deathly nausea, with vomiting and retching so prolonged and violent as to produce hematemesis. The smell or thought of food was repugnant in the extreme. An examination disclosed no malposition or apparent cause for the trouble. Symphoricarpus checked the vomiting and soothed and quieted the patient. In half an hour the nausea began again, but a few pellets checked it promptly and she fell asleep. Once during the night she awoke distressed and took a dose, but slept again quite soon. For a month or so she felt very well, until, after over-exerting herself, she became nauseated once more; but it was promptly checked, nor did it return during her pregnancy.

Sambucus Nigra in Dyspnœa.—Dr. J. B. S. King, Med. Vis.—Loud, wheezing respiration, could be heard all over the flat.

Face pale, bluish, and puffy. Copious cold sweat. Tenacious mucus running from nose. Child is greatly distressed for air. Starts up suddenly and wants head on high pillow. This condition had started apparently with a cold in the head two days before, and had gradually extended and grown worse ever since. The difficulty was not in the larynx, for there was neither hoarseness nor croupy cough. The loud wheezing arose plainly from the chest, and was caused by diminution of caliber in the smaller bronchial tubes, either from spasmodic constriction or from viscid discharge. Whatever the condition may have been, sambucus nigra 2x, a few drops in a glass of water, a teaspoonful given every hour for a few hours, made a very pretty and rapid homeopathic cure.

Causticum in Enuresis.—Dr. C. H. Evans, Clinique.—Causticum has been observed to be more efficacious in the case of boys than girls, although the incontinence controlled by this remedy occurs in both sexes, and, indeed, at all ages, not only occurring at night during sleep, but during the day also, whenever there is coughing, sneezing, laughing, or other sudden expiratory effort; the sphincter is wholly unreliable when any unexpected pressure is made on the bladder. This same weakened sphincter giving way under sudden pressure is also met by natrum mur. and squilla. As an ætiological factor the prevalence of continued cold weather renders the incontinence more pronounced. When nocturnal, it is generally apt to occur during the first sleep; in other words, within two hours after going to sleep. Tonsillar enlargement is sometimes met with. Sepia is especially called for when, as in the case of the causticum individual, enuresis takes place within the first two hours of sleep.

Crocus Sativus in Dysmenorrhea.—Dr. M. Baltzer, Arch. für Hom.—A young girl, sixteen years of age, menstruated every two or three weeks; the menses were copious, with dark clots, preceded by shivering. The first day of the menses was marked by cramps in the hypogastric region. Often there were flushes of heat to the face, and when moving, sensation in the hypogastric region as if there were three balls which rubbed one against the other. Copious, viscid, and glairy discharge, most considera-

ble a week before and after menses. Between times, fits of hunger ; but on assimilating the smallest amount of food, malaise. *Crocus sativus* 6th cent., seven doses given (one to be taken every third night). Three months later there was no more discharge, and the menses were regular. The chief indication for crocus in this case was "sensation as if something were moving in the abdomen."

Mercury in Diphtheria.—Clinique.—The iodides of mercury are of frequent use in diphtheria when the glandular structures of the neck are especially involved. When the protoiodide is indicated, the right side of the throat is more severely attacked. While both tonsils are swollen the tonsil of the right side is enormously enlarged ; the membrane is greater in amount on that side, a free secretion of tenacious mucus is manifest in and over the entire throat, and a heavy, dirty, yellow coating covers the posterior half of the tongue.

In those cases calling for the biniodide, the right tonsil is attacked first, or sustains the disease in greater force ; it not only becomes immensely enlarged, but the swelling extends to the cellular tissue of the neck, and involves the submaxillary and parotid glands, so that the entire contour of the neck is lost, and an unbroken surface extends from the lower maxillary to the clavicle. Tenacious mucus and salivation accompany this condition.

Lycopodium in Pruritus of the Vulva.—According to P. Jousset, pruritus of the vulva, especially frequent at the climacteric and during pregnancy, often accompanies leucorrhœa. It is a frequent sign of diabetes in women. *Lycopodium* (12 and 30) produces an extremely violent pruritus of the vulva. This remedy is indicated when the pruritus is accompanied by burning, smarting, or venereal excitement. *Conium* (low dilutions) contains in its pathogenesis pruritus with incisive pain. The characteristic of this pruritus is to penetrate deeply into the vagina. *Graphites* (low triturations) has pruritus of vulva and vagina, especially before the menses. Clinical observations have confirmed its usefulness in these cases. *Helonias* is said to have produced intense pruritus with swelling, heat, and redness of the

affected parts ; also, terrible itching, causing the patient to scratch to bleeding. The mother tincture has been generally used ; Guérin-Ménéville, however, claims to have obtained good results with the 6th dilution. *Carbo vegetabilis* (30): This remedy produces symptoms of pruritus of the anus and vulva, with sensations of burning and excoriation.

Podophyllum Peltatum in Dentition.—Dr. F. Kopp, Hom. World.—During difficult dentition, so greatly fraught with danger to infantile life, in which rolling of the head is a prominent symptom, *podophyllum pultatum* stands in a strict homeopathic relationship, and acts like a charm. Also in those orders of dentition in which coldness of the face, and at the same time perspiration of the head, during the slumbers of the little patient, are present. These symptoms are amenable to the action of the drug. Again, during dentition, when this natural process is attended with painful diarrhœa, the grinding of the teeth, and screaming, *podophyllum peltatum* is drug indicated. The stools may be green, yellow, brown, mucous, or watery, and without or streaked with blood. It is also very effective in offensive, chalk-like stools, which are very frequent, and accompanied with great thirst and gagging. In constipation of an obstinate character, and of several days' duration, the drug acts homeopathically, and soon restores the bowels to a healthy action. It also acts well in removing the affection, in older children, known as grinding of the teeth ; this symptom usually takes place at night, while the child is lying asleep in bed.

Sepia in Leucorrhœa.—Dr. J. T. Kent, Med. Ad.—*Sepia* leads all other medicines for leucorrhœa in little girls.

There is always a feeling of bearing down, or dragging down, sometimes described as a funneling feeling in the vagina, constant desire to hold the parts up, as with a bandage or napkin, and entirely relieved by lying down, by holding the limbs close together, or by crossing the limbs. Constant desire to hold up the abdomen, which is enlarged and flabby. *Sepia* is a great medicine for women with large abdomen, who have borne many children. Pendant abdomen, wants to hold it up with a bandage. Together with this, there is quite a general symptom running

through sepia, a sensation of emptiness in inner parts, most striking in the stomach. Sometimes it is described as almost like a hunger, and then, again, like a faintness ; sometimes like an all-gone sensation that is indescribable. This extends to the chest and abdomen. More than all, emptiness in the pit of the stomach, so that she is driven to eat, which sometimes ameliorates and sometimes does not. She is driven to take things into the stomach to relieve that sense of weakness.

Thuja in Ovarian Pains.—Dr. J. T. Kent, Med. Vis.—Many women suffer from grumbling pains in the ovaries all the time—they have a sense of the organ which they should not feel ; pain from taking cold or in change of weather. The increase of the pain in the left ovary is the first sign. Sometimes the pain is so severe that the right one suffers apparently from sympathy. Now, where the ovaries have been affected for some time, we get mental symptoms, a most violent irritability, jealousy, quarrelsomeness, ugliness. This irritability is likely to be shown toward individuals about the house, toward the husband and mother. She is yet able to control herself among strangers, and the doctor may not be able to find out anything about it, because she has in her nature a disposition to cheat ; she wants to be alone, and takes upon herself fixed ideas—that she is pregnant, or that an animal is in her bowels ; she feels the motion of a child's arm, thinks she is followed, or that someone is walking beside her, thinks that soul and body are separated.

Now, these are fixed ideas, and there is no use in trying to reason them out of her. It seems to her that she is very delicate, that she is made of glass and that she will break. The idea is that she will break, and not that she is transparent. Associated with this condition we have violent, intense, tearing headaches, tearing in the eye, ameliorated by heat. The eye-ball pains are better from heat, and the rest are better in the cool, open air. When you see a thing like that, you have almost a spike driven in by which you can hang it up. It is in your understanding.

Obstetrics.

False Labor Pains, according to Professor Parvin, are often due to disordered digestion.

Headache in Pregnant Women.—A headache in a pregnant woman should arouse suspicion. It is a frequent symptom of anæmia and threatening eclampsia.

Healthy Offspring.—Dr. Korosi finds that the healthiest offsprings are born of mothers between twenty and thirty years of age, united to husbands between thirty and forty.

Antipyretics in Puerperal Sepsis.—Dr. Davis thinks that antipyretic drugs should never be administered in cases of puerperal sepsis.

Inflamed Mammary Glands.—Professor Hare thinks that no remedy is equal to the local application of belladonna in preventing the secretion of milk in cases of inflamed mammary glands.

Puerperal Eclampsia.—Professor Harr believes amyl nitrite to be a dangerous drug in puerperal eclampsia, as owing to its action on the muscles of the uterus it will relax them to such an extent as to give rise to great danger from the occurrence of post-partum hemorrhage.

Vomiting in Labor.—Vomiting in the first stage of labor, Professor Parvin says, is regarded by some as a good omen. But if vomiting occurs during the second stage, accompanied by cessation of labor and with exhaustion of the patient, the immediate delivery of the child is indicated.

The First Cæsarean Section.—The first Caesarean operation on the living and parturient woman was practiced by the sow-gelder, Jacob Nuger, of Sieger Shausen, in Thurgau, upon his wife, about the year 1500. After thirteen midwives and several lithotomists had endeavored in vain to relieve her, her husband having invoked the assistance of God and obtained the special permission of the Governor of Franenfeld, operated "just as on a sow" with such good fortune that the mother survived to the

age of seventy-seven and was able subsequently to bear several children, and even twins in the usual way.

Urination after Labor.—Dr. N. Recht, Internat. Bibl. Med., arrives at the following conclusion regarding micturition in the lying-in period :

(1) Urination after labor, in the majority of cases, follows spontaneously. (2) Catheterization is but exceptionally required ; if it be necessary, its should be delayed as long as possible. (3) It is only indicated when the bladder assumes abnormal proportions, or if retention occurs. (4) Catheterization is liable to occasion two evils—cystitis, in spite of all precautions, and dependence of the bladder for a time upon the catheter.

A Sign of Breech Presentation.—La Clinique Internal.—When, in a woman who has passed the sixth month of pregnancy, a sharp pain is produced by placing the hand on the fundus uteri, it may be almost affirmed that there is breech presentation. The fact is very frequent, although not constant, being present in about seventy per cent. of cases. The pain is sometimes spontaneous. How is it to be explained ? According to Pinard, it is due to the irregular distention produced by the rounded mass of the head. If version is performed the pain disappears.

Spontaneous Reposition of the Uterus.—Dr. Vogt, Norsk Magazin for Lagevidenskaben, observed a case of spontaneous involution of the uterus after acute inversion. A primipara of forty-two years had been delivered by the aid of forceps, and the placenta had been expelled. Compression of the uterus and vaginal arch was made to arrest hemorrhage, when the hand, introduced into the vagina, felt the uterus move and the fundus descend, while the other hand, applied to the abdomen, could feel no trace of the uterus. Hot water was immediately injected, when the uterus ascended, resuming its normal position.

Obstetrical Experience.—J. P. Williard, M. D.—When I opened office for practice in July, 1868, I waited but a few days when a boisterous, jolly, country lad came to my office in great haste and said, "Doc, there is a woman out at our place trying to do a sum in multiplication, and she waits you to come and help her." I went and it was twins. That seemed a good starter,

but there was nothing unusual, from that time on I have had my share of cases and some twins, but no triplets. I recall no cases of twins of any unusual interest.

I had one case of single birth, where the cord encircled the child's neck completely, six times, the child did well after I got it untangled.

Artificial Fecundation.—This was first performed by Dr. John Hunter. He was consulted by a person who expressed great anxiety to have children, but whose urethra opened into the perineum. Hunter recommended him to inject by syringe, previously warmed, the semen into the vagina, post coitum, during the orgasm. A more remarkable case is that reported by Averroes, where a woman was said to have "conceived in a bath by attracting the sperm of a man admitted to bathe near her." The most striking feature about this last case is its having been admitted by Mohammedan jurists as a precedent.

Delayed Rotation in Labor.—Professor Davis advises that, in cases of labor in which there is deficient or delayed rotation of the presenting part, the patient be placed on the side on which the occiput tends to rotate. Firm pressure should be made over the fundus uteri in the axis of the inlet, that is, downward and backward. The patient should be partly under the influence of an anæsthetic, provided the head is outside the os. In many cases the application of the forceps will be rendered unnecessary.

Are Deaths from Childbirth and Puerperal Diseases Becoming More Frequent?—Dr. Lockhart, Med. Summ.—Are deaths from childbirth and puerperal diseases becoming more frequent? Have the *natural* conditions of childbirth and the puerperal state become so changed by the onward march of civilization as to, in any way, account for the increased number of deaths from these causes, or has the medical profession gone too far in its insistence on artificial conditions and environments that thwart, too often, Nature in her beneficent designs?

My own experience, extending over sixteen years, the reported statements of others who believe that in the vast majority of cases nature needs no assistance, and the well-known fact that it is impossible for the average country practitioner to comply with the

requirements of modern asepsis and antiseptics, and that he seldom loses a patient from these causes, inclines me to the belief that modern meddlesome midwifery is chargeable with the result. Vaginal and intra-uterine douches and injections, including the whole category from plain water to the strongest acid and bichloride solutions, are constantly and persistently employed; in these days of hurry-scurry, forcible dilatation of the os uteri is not unfrequently employed during the first stage of labor to expedite delivery, and in the second stage the forceps are criminally applied for no other cause. There no doubt has been and will continue to be an increase in the number of deaths from these causes in exact ratio to the increase of this kind of practice.

. When the medical profession has learned and conscientiously conform their practice to the great truths that the natural secretions are nature's first and best antiseptics, manufactured in God's own laboratories, and not to be excelled by the inventions of the finite mind, and that the phenomena of normal parturition are no more to be interfered with than normal digestion; that all attempts of the finite to improve the wisdom of the Infinite must prove futile and result in injury to someone; that our patients must suffer, and perhaps die, for our presumptions, then, and not till then, will the death rate from childbirth and puerperal diseases begin to decline.

I am firmly convinced that it is medical *practice* more than medical education that should be forced to a higher standard.

Post-Partum Hemorrhage.—Gen. Pract.—There are a great many ways of treating post-partum hemorrhage, all bad but one, and that one easy to carry out, and requires no machinery. Put your hand into the uterus and clean out the clots and the small pieces of retained placenta that cause the hemorrhage by preventing the close contraction of the womb. At the same time, with the other hand, follow down and hold the uterus in firm contraction from the outside as you withdraw the hand from the inside. This stops the hemorrhage at once by removing the cause, and places your patient in a position of safety. While you are sitting there holding the uterus in place with the hand over the abdomen, you will have an abundance of time to think of all the remedies for post-partum hemorrhage that you ever read or heard of.

Puerperal Disease.—Boxall, from an elaborate study of statistics, concludes that the death rate from puerperal fever is greater during the winter than during the summer months. This seems to hold good in different places and for different years; also that septic illness in childbed fever is more prevalent during the winter than in summer, but is attended with less fever and, therefore, is of less severity in winter than in summer. Other cases of febrile illness are more prevalent during the summer than the winter, and such cases evince no great difference according to season. In the hospitals where the patients are more certainly exposed to external meteorological influences, it is still possible to discover an increased tendency to the prevalence of septic illness during the winter. Since May, 1884, the amount of illness of this description has been so slight that no such variation in accordance with the season of the year can be traced, as will in any degree correspond with that observed in practice outside of hospitals.

Precipitate Labor with Inversion of the Uterus.—Dr. Alfred G. Pfeffer, Am. Med. and Surg. Jour.—The patient had been walking around when she was suddenly seized with cramps in her abdomen, felt something give away, and child and patient dropped on the floor. When the doctor arrived the umbilical cord had been completely ruptured and the child was dead. The mother lost considerable blood and was suffering from shock. He discovered, projecting through the labia, a round red mass which bled freely upon touching. He at first supposed it to be a submucous fibroid, but upon making bimanual palpation he found the fundus of the uterus missing and a crater-like depression instead. He succeeded in reducing the inversion by making gentle pressure with his right hand against the inverted fundus, using his left hand as counter pressure upon the abdominal wall. There was no post-partum hemorrhage and his patient made an uneventful recovery.

Acute Infective Diseases and Abortion.—Dr. Klautsch, Münch. Med. Woch.—Pregnancy may be brought to an end either by the death of the fetus or, less frequently, by premature uterine contractions. The fetus may die owing to (1) deficiency of oxygen; (2) alteration in temperature; or (3) direct transmission

of the infection. These conditions may be combined. The inconstancy of the transmission of the infection is explained by the circumstance that it can only occur when the normal connection between the maternal and fetal circulation is disturbed. Premature pains may be caused by (1) increased body temperature ; (2) altered blood ; (3) changes in the uterine mucous membrane, as in endometritis exanthematica ; or (4) toxins present in the blood. If the deficiency in oxygen occurs rapidly, the fetus dies ; if more gradually, pains are induced. In typhoid fever abortion occurs in more than half the cases, and the fetus is mostly born dead, the death being most often due to the transmitted infection. Cholera is not transmitted to the fetus, the death being here due to the altered blood, to an endometritis, to a diseased fetal placenta, and to temperature variations. In measles the fetus rarely dies. In severe malaria the fetus is more often born alive, but soon dies of malarial cachexia. In pneumonia the death of the fetus is not uncommon, and is due to asphyxia. Variola frequently kills the fetus, yet many are born alive. As regards the pains, the fetus may be expelled in variola even during the suppurative stage ; in malaria after the paroxysm ; in erysipelas most often when the eruption appears ; in cholera during the transition stage ; in influenza soon after the onset of the febrile symptoms ; and in pneumonia on the third or fourth day. In typhoid fever the abortion may be accompanied by much hemorrhage, or strong contractions and little hemorrhage. In cholera the hemorrhage is profuse, and the contractions violent. The fetus is mostly much more threatened by the altered temperature, disturbed circulation, and pathological changes in the endometrium, than by the transmission of the infection.

Puerperal Fever.—Dr. Ball, International Jour. of Surg.—The connecting link existing between erysipelas and puerperal fever seems capable of clinical proof. The risk of the accoucheur making post-mortem examinations, attending surgical cases and lying-in patients at the same time, has long been pointed out, but in the country it is next to impossible for a practitioner to confine himself to any one particular branch. If the country physician expects to see cases of erysipelas, dress sloughing wounds, and upon the same day, and perhaps upon the

same trip, visit the lying-in chamber, the greatest precaution and the most active disinfectant measures should be used. The cessation of epidemics of this disorder and the greatly lessened mortality in our lying-in hospitals both are strong proofs in favor of careful disinfection; but after all measures have been adopted, we find that in some mysterious way, after we have disinfected ourselves thoroughly, after the most approved plans; still we may become the carriers of this contagion and the indirect cause of the death of our patient. While it is true that careful disinfection has lessened the number of cases of septicæmia after parturition, it is not less true that all cases do not arise from poisoning from without, and that it is sometimes, if not frequently, autogenetic. Hippocrates held that this disease was always due to resorption of decomposing material from the retained placenta, but the truth, as usual, is between the two.

Gynecological Etchings.

Danse du Ventre in Constipation.—An interesting case of the cure of chronic constipation in an actress is reported by M. Simon. She had suffered from constipation from childhood, and had never been benefited by any plan of treatment. It became necessary for her to practice the danse du ventre, when her constipation disappeared as by enchantment.

Photographing the Womb.—In addition to the other indignities inflicted upon that long-suffering organ, a method of dilating the uterus by means of tents, so that by the use of a mirror a perfect view may be obtained of the interior of the organ, has been devised. Not content with this, the author of the new method proposes to obtain photographs of the uterine interior in various diseases of the organ.

Hysteria and Marriage.—It is old belief, one as ancient as the time of Hippocrates, that hysteria is essentially a disease of single women, and that it will be cured by marriage. Dr. Wythe Cook finds, however, from his experience that in most cases of dysmenorrhea and hysteria among single women marriage

aggravates the diseases. Hysteria is by no means cured by marriage, dysmenorrhœa often returns after pregnancy.

Pigmentation in Amenorrhœa.—Dr. Lawrence, Med. Chir. Jour., reports the case of a girl suffering from amenorrhœa with pigmentation. This became so marked as to suggest Addison's disease. She was treated with wine of iron, one dram, and Fowler's solution of arsenic twice daily, Burgundy in moderation, careful diet, the addition of milk, and her life regulated in accordance with general hygienic principles. This resulted in complete cure after many months.

Menstruation in a Child.—The case of a girl who began menstruating regularly at the age of five years is reported by Dr. G. E. Rein. The catamenia recurred every three or four weeks, and lasted on each occasion from four to ten days. The breasts, external genitals, and pubic hair growth resembled those of a girl thirteen or fourteen years old. The abdomen proved to be considerably enlarged, the circumference amounting to 32 inches. The examination revealed the presence of a fluctuating thick walled ovarian cyst.

Cold Bathing During Menstruation.—Dr. Depasse, Gaz. de Gyne.—Cold bathing during menstruation is a beneficial measure, provided women accustom themselves to the treatment by bathing every day for at least eight days before the arrival of the period, when they can continue during the menstrual flow without any danger. In the case of a very anæmic girl, in whom this treatment was instituted, it gave most satisfactory results. Houzel, before the recent Boulogne Congress, held that cold salt water baths facilitate the menstrual flow, increase the duration of genital life, and likewise increase fecundity in a remarkable manner.

Vaginal Douches.—According to Dr. Baldy, vaginal douches of hot water, as commonly used in the treatment of pelvic or uterine inflammation, are positively harmful. Hot water used by the patient in the crouching position simply adds congestion to an already inflamed part. To derive benefit rather than harm from the treatment the patient must be reclining and not less than a full gallon of water, at a temperature of 105° to 110° Fahr., should be used.

Pruritus Vulva.—Dr. A. Czempire, Derm. Zeitschrift.—The most frequent locations of this disease are the labia minora, clitoris, introitus vagina, and interior of vagina. The mucous membrane is dry, of a gray color, and looks as if powder had been dusted on. The changes caused by the rubbing and scratching are characteristic of the disease. There is no ætiological connection between cervicitis, endometritis, and the pruritus vulva, but they are often coincident. As to treatment, the main stress is laid on general treatment, as the affection is due to constitutional or neurotic cause. Nitrogenous foods are interdicted, and sedatives and diet recommended. Fowler's solution has proved serviceable in some cases. The patient should be kept quiet and local examinations avoided.

Absorptive Power of the Vagina.—Drs. Coen and Levi, Brit. Med. Jour., report the result of some observations made on the absorptive power of the vagina under various conditions of health and disease. Iodide of potassium is easily absorbed. If a tampon soaked with a twenty per cent. solution be introduced into the vagina, iodine can be found in the urine in an hour. The excretion reaches its maximum in twenty hours and ceases in forty-eight hours. Fever and pregnancy increase the absorption. Hysterectomy makes no difference. Iodoform is absorbed slowly and in very small quantities, but more if fresh than if old. Salicylic acid is absorbed quickly, appearing in the urine in one hour and disappearing in twenty-four hours. Salol is very readily absorbed. Antipyrine is excreted in an hour and a half and is found for forty-eight hours, but its antipyretic action is feeble as compared with administration by the stomach. In brief, the vagina has undoubted absorptive power, and this is increased in pregnancy, in the puerperal state, and in pyrexia.

Pediatrics.

Catholic Measles.—Dr. Gryglewicz reports an epidemic of measles occurring in the town of Jutrorchin. The inhabitants of the place are about equally divided between Catholicism and

Protestantism, and the curious part of the epidemic was that only Catholic children were attacked, every one of the Protestants, as far as could be learned, having escaped.

Periods of Isolation for Contagious Diseases of Childhood.—Dr. Olliver, Gaz. Med. de Strasburg, makes the following rules :

For scarlatina, variola, varioloid, and diphtheria, the period of isolation, before the child is allowed to return to school, should be forty days, counting from the first day of invasion.

For measles and varicella, sixteen days will be sufficient.

For pertussis, isolation should be prolonged to three weeks after complete cessation of the characteristic kinks.

For mumps, ten days after the disappearance of the local symptoms.

Nasal, buccal and pharyngeal irrigations with antiseptic solutions should be employed, and soap bath and rubbing of the entire surface and scalp should be a necessary preparation before returning to school.

Typhoid Fever in Infants.—That typhoid fever is more common in infants than was formerly supposed is beginning to be appreciated by many physicians.

Speaking upon this subject, Dr. I. N. Love, Jour. Am. Med. Ass., says :

1. Typhoid fever occurs more frequently in children than is generally supposed.

2. The fact that ulceration and hemorrhage is much less frequent would explain the absence of pronounced abdominal symptoms.

3. The erratic, undeveloped, and hyper-sensitive nerve center in early child life explains why the toxic secretions of the Eberth bacillus should make cerebral symptoms very pronounced.

4. Given a child of any age with or without intestinal disturbance, with a continued elevated temperature, with or without marked evidence of cerebral disturbance, the possibility of the presence of the Eberth bacillus of typhoid fever should be constantly kept in mind.

Supra-pubic Cystotomy in Children.—Folinea, Rif. Med., reports seven cases in which he performed supra-pubic cystotomy

for stone. The average age of the children was a little over three years. Complete cure followed on an average in thirteen days after the operation. Although the number of cases is small, the author feels justified in concluding that supra-pubic cystotomy is an operation which may be performed on children with good results; that one ought in these cases to adopt complete suture of the bladder; provided that viscus be in a healthy condition; in chronic cystitis, renal mischief, and vesical hemorrhage the author would not sew up the bladder. As a rule a double suture suffices, since the bladder forms a firm cicatrix. Folinea thinks that in children supra-pubic cystotomy should be preferred to any other operation for stone. His seven cases all did well.

New Method of Resuscitating the Stillborn.—Dr. A. B. Cooke, Am. Med. Surg. Bull.—The method, as I have employed it, is as follows: The cord is left intact and the child placed in a position admitting uninterrupted inspection. The finger, preferably the index, is then lubricated and quickly introduced into the rectum. The effect will be striking, not to say startling. Coincident with the passage of the finger into the sphincter respiration will be instituted with a spasmodic gasp, and the child begin in its feeble way to resent the treatment with vigorous kicks and lusty squalls. The procedure may be repeated as often as necessary to accomplish the end in view. In my experience a second introduction of the finger has not been required.

Sewer Air and Diphtheria.—A few years ago a new system of main sewerage with the ordinary road-level ventilators was inaugurated in one of the suburbs of London, and upon its being brought into use serious cases of diphtheria almost immediately began to break out. The medical officer of health at once had the drains flushed with a strong solution of perchloride of mercury, and the cases stopped almost as quickly as they commenced. In Glasgow it is reported that in the sewered portion of the city diphtheria is nearly always present, while in the unsewered portion it is quite rare.

Recurrence of Scarlet Fever within One Year.—Dr. J. B. Crandall, Med. Surg. Reporter, records an unusual case in which scarlet fever appeared twice during the same year. In March,

1894, he treated a girl of twelve years, for an attack which followed the ordinary course, with exfoliation of the derma. The convalescence and recovery were without complications. The rest of the family were isolated and escaped. In November he was called to attend her again, and watched the case from the early fever to the formation of the scarlet rash, the symptoms—strawberry tongue, exfoliation, etc., being marked, though the throat symptoms were not so prominent as in the first attack.

Died after his Twin Died.—Thomas Nevins, the Myrtle Avenue (Brooklyn) dry goods merchant from whose spine a remarkable growth was removed a few weeks ago, died at the Seney Hospital recently. Ever since the operation his life has been ebbing away.

He was thirty-eight years old, prosperous and robust till, nearly three months ago, he complained of sharp pains in the thighs and groin, and his friends concluded that in some over-exertion an abscess had formed.

An operation was performed by Drs. Fowler and Farrington, and a male child, eight inches long and perfectly formed, was found imbedded in tissues.

The doctors say Nevins was one of twins, and that before birth the embryo of the other child had become entangled in his own. The doctors believe that for thirty-eight years Nevins sustained the life of his imprisoned brother. Then, in some way, the connecting ligaments were broken, and the death of the baby ensued.

Enuresis.—Dr. J. P. Cobb—A very common cause is the pernicious habit of feeding children too much proteid food. An excess of proteid food is not made use of by the system; but taxes the digestive organs to put it into less highly organized forms; to reduce it to excretory compounds. Much of this excess is eliminated by the kidney, as partially reduced peptones, imperfectly oxydized urates, and allied compounds. A urine overloaded with these solids causes an unduly irritable bladder, the intrinsic nerve mechanism is subjected to unusually irritating impressions, and the reflex action of the lumbar center is more frequently and persistently invoked.

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OF THE BUREAU OF OBSTETRICS OF THE
AMERICAN INSTITUTE OF HOMEOPATHY, IN
ANNUAL SESSION AT NEWPORT, R. I., JUNE,
1895.*

BY

T. GRISWOLD COMSTOCK, M. D.

I SHALL have two aims before me on the present occasion: First, to show that a zest, with an unusual interest and enthusiasm in behalf of gynecology, has served to call the profession away from science and art of obstetrics. Second, to make mention of such advances and progress as have occurred in this most important department of the profession since our last annual meeting.

Allow me to promise, I have not the slightest purpose to disparage or underrate the work of the skilled and enlightened gynecologist. To the contrary, I esteem it of

* This address and the articles following were reported stenographically expressly for this journal.

the greatest importance, and hold that it should be intrusted only to those of the highest order of education for this particular branch of professional work. Why an interest and activity in this quarter should have served to relegate obstetrics to a place of less importance than it formerly held may not be quite apparent; nevertheless, we think the fact exists. In this connection it is proper to observe that it is in the memory of many present when the term gynecology was unknown in professional parlance, and this special department of work had no place, while obstetrics had a place and practice from the earliest history of mankind, whether savage or civilized. The pangs and sorrows of woman in travail have direct and incidental mention in Holy Scripture, both old and new.

Upon the successful issues of maternity the highest and holiest interest of the individual, the family, and the state may depend. While the queen is in the throes of labor, the people of a great empire or kingdom may be in corresponding throe and anxiety as to the maternal issue. In our own republican country the waves of anxiety and expectation ripple everywhere in the interested circle for the prospective mother in labor, whether it be the wife of a peasant or the president, of a pauper or the merchant prince.

All the multifarious issues of domestic affection, legitimacy, genealogy, and the rights of property may depend upon the skill, diligence, and faithfulness of the family obstetrlist. Indeed, much of the after opportunity of the professional gynecologist may depend upon the manner in which the obstetrlist shall have performed his duty during parturition and childbed management.

Given a skilled obstetrlist to conduct a labor, and we shall find perineal and cervical lacerations, subinvolution, and displacements to be the exception instead of the rule. In this place we feel called upon to congratulate wives and mothers that the old-time midwife has been compelled to

give place to educated qualified members of their own sex, who may be called to assume the rôle of accoucheur. Woman's quickness of perception, warm, sympathizing nature, her small hands and dexterous fingers, give her great facility in this department of work. Then, too, we have pleasure in a recognition of the fact that some of the highest authorities and most skillful practitioners in obstetrics have been women.

We likewise congratulate the practitioner, as well as the woman in labor, that we are rapidly introducing educated, skilled nurses, who have the ability to maintain a dignified reticence with exact obedience to orders, qualities formerly conspicuous by their absence among this class of subordinates.

The year since our last meeting has been characterized by a disposition to return to and improve old methods, rather than by anything strikingly new or unusual.

Asepsis and antisepsis in the puerperal state have taken fast hold upon obstetrical practice, with the prospect that puerperal fever, septicæmia, metritis, and peritonitis may soon become things of the past.

The process of prevention and correction is made applicable to patient, physician, nurse, and the entire apartment where the labor is to take place. Vaginal irrigations, extending, if need be, to the endometrium, are carefully administered by a trained nurse, while the greatest precautions are taken to keep scrupulously clean the surface of the body, linen, and bedding. The old-time purgative has given place to the homeopathic remedy, with hot water intestinal irrigation. Under the improved and improving modes, constant dosing of the pregnant or puerperal woman is fast losing its place, and we shall soon reach the conclusion, and demonstrate the theory, that utero-gestation, parturition, and the puerperal states are just as normal as other functions and processes of the healthy woman, to be regarded strictly as physiological processes.

Our local St. Louis Medical Society has recently held an interesting discussion as to the use of the curette in the management of accidents incident to the puerperal state. The conclusion reached is that certain phases of septi-cæmia dependent upon retained coagula, secundines, and any remnant of placenta, should be removed by the skilled use of this instrument.

In my intercourse with some of my professional brethren I detect a quality of doubt and fear in the use of the curette. Of course, it is just like any other efficient, strong factor when in use: powerful for good in skilled hands and equally powerful for harm in the unskilled hand. Reports have been made recently that the uterus has been perforated under its use, but we think such results should be set down to the discredit of the operator rather than to the prudent use of the instrument.

If it were not for a seeming digression into the domain of gynecology, I would like to say something of the use of the curette in septic endometritis and subinvolution. I have found its use in such cases most satisfactory, as well as entirely safe, and followed by excellent results.

At the late meeting of the Southern Homeopathic Medical Association two members fell into a controversy as to which shoulder, in the first position of natural labor, is first delivered. My experience was solicited, and my reply, fortified by prominent authorities in support, was in favor of the anterior or subpubic shoulder, which, in the *majority* of cases, is delivered first.

At the late meeting of the Missouri Institute, Dr. W. C. Richardson read a paper in opposition to this experience. He quoted sundry authorities, stating that the posterior or perineal shoulder is delivered first. And so the matter stands, as a kind of literary and professional surprise to many who had not thought or observed particularly on the subject. The influence of uterine fibromata, affecting fecundity, uterogestation, and parturition, is just now attracting at-

tention. Heretofore we have been advised to let these growths alone, if they did not seem particularly troublesome to the patient, under the theory that they are likely to subside at or about the period of the menopause. Recent observations would seem to show that they do not so subside with any certainty, but, instead, may degenerate into some form of malignancy, and make serious trouble. Many physicians seriously question whether retrogressive changes of a benign character follow the advent of the menopause. I may qualify this by saying that experience shows us that we can call to mind instances in the plural number where large fibroids have not disappeared after the climacteric, as promised by their medical attendants.

Should conception take place they may so embarrass the process of gestation as to bring on abortion or premature labor, or, in the event of full term, may make much mechanical hindrance. I have found that these growths, in addition to the above hindrances, may delay the menopause for several years, during which time menorrhagia and recurrent floodings will be the rule. Under this view of matters, would it not be better to recede from the present expectant plan, and adopt a more radical course? In other words, remove them when practicable by evulsion, ecrasement, excision, or morcellation; but when too numerous or too large, by hysterectomy, vaginal, suprapubic, or abdominal. With our improved asepsis and antisepsis, these radical proceedings have lost much of their former terror, both for the surgeon and his patient. I desire to enter a plea here for a more careful examination of the genitals after delivery, in order to ascertain whether the parts have sustained any damage, and specially as to any injury of the perineum by laceration. I am satisfied a want of diligence in this matter may prove a great wrong to the patient, because in the event of a rupture its *immediate repair is comparatively an easy matter for the patient*. Formerly, physicians were divided in opinion and practice as to

whether the repair should be made at once (primary) or at some remote period (secondary), after the completion of the puerperal state. The consensus of opinion is now decidedly in favor of immediate repair. I, therefore, insist that the obstetrict should go to the lying-in apartment ready to take prompt action if need be. In this way the patient is saved a needless second lying-in, as well as additional expense, to say nothing of the chances of her improved condition of health, after the puerperal state has passed, if she gets up with a perineum repaired and perfectly united. In the journals recently we find a comparison of views as to the absolute and relative results between symphyseotomy and the Cæsarean section.

As to choice between modes, we feel free to give a preference for the Cæsarean section, as more easily performed ; and because of a probable injury to the bladder under symphyseotomy, with serious risk that rearticulation may fail, and so leave the patient lame for life. In case of serious disproportion between the fetal and maternal parts, the Cæsarean section will be a necessity because of a larger space.

LIGATURING OF THE UTERINE ARTERIES FOR THE CURE OF UTERINE FIBROIDS.

BY

W. E. GREEN, M. D.

FOR years Tait has advocated the removal of the appendages (which is, practically, ligaturing of the ovarian arteries) for the cure of uterine fibroids ; and so strong is he in his advocacy of the procedure, that he decries hysterectomy in such cases as an unwarrantable operation. I believe that the idea somewhat prevails that the loss of the ovaries and

tubes in some way (probably through the nerve supply) influences the growth of the tumor, though I have never read any theory in regard to the subject. The true cause of the decrease in the tumor is undoubtedly the cutting off of the blood supply, and the ultimate atrophy of the growth through the consequent ischæmia. Since the uterine arteries are larger than the ovarian, it looks reasonable that better results might be expected from ligaturing these. Dr. Merlon of Chicago, was the first surgeon to put this thought to a practical test. In April, 1893, *Am. Jour. of Obs.*, he describes the operation and reports two cases; late in January, 1894, he reports four others. Of these six cases, four were practically cured, and the other two benefited.

When I read this report I was greatly impressed with the importance of the operation, and was determined to put it to a test at the first opportunity. Though two rare cases of bleeding fibroids soon presented, I could not induce them to undergo any form of operation, and it was not until February of the present year that I had the satisfaction of thoroughly testing this operation.

February 20, 1895, I was consulted by Mrs. T., æt. twenty-eight, delicate, small in stature, had been married three years, was never pregnant; had always suffered from some menstrual disorder. For the past two years she experienced much pain and discomfort in the pelvic region and hips, in addition to constant vesical tenesmus. For more than a year the abdomen had been very perceptibly enlarged; upon an examination I found the pelvis filled with large fibroid that seemed to spread out in the broad ligaments, and extended up in the abdomen almost to the umbilicus. She had consulted several eminent gynecologists of the East, all of whom diagnosed uterine fibroid, and recommended hysterectomy. She was so frightened at the thought of an operation that it was impossible to persuade her to submit to it. Through the influence of friends she was sent to me. Since she was adverse to hysterectomy I advised ligaturing of the

uterine arteries, to which she readily consented. February 21 I placed her under an anæsthetic, and after rendering the vaginal tract thoroughly aseptic, I made an incision one and one-half inch long, on either side of the cervix at right angles with the broad ligament. The broad ligaments were then separated from the bladder in front and the rectum behind, exposing the base for a distance upward of fully one and one-fourth inch. The index finger of the left hand was then passed up on one side, behind the broad ligament, so as to accurately locate the uterine artery, which was as large as a crow's quill, and throbbed vigorously. A strongly curved needle, threaded with No. 6 silk ligature, was then introduced posteriorly, and passed upward until it grasped fully one inch of the ligament, including the artery; it was now made to transfix the ligament and drawn through, and the ligature tightly tied. The opposite side was dealt with in like manner. The wounds in the vagina were then closed with small catgut, and the vagina packed with sterilized gauze.

The patient suffered from neither nausea nor shock, and, aside from a severe pain in the back, that lasted for twenty-four hours, was not seemingly inconvenienced from the procedure. Before the operation she suffered almost constantly from severe pain in the left hip and thigh, this was relieved within two or three days, and at the expiration of one week the tumor had much decreased in size and the patient expressed herself as feeling much better. At the present writing, two and one-half months after the operation, the tumor is reduced to less than one-third of its former size, the pelvic pains and inconvenience in urinating are all gone; the menstrual flow is natural and the patient feels well and is in good health.

June 5 I received a letter from her in which she expressed the utmost gratitude for the relief she had obtained. She stated that she was feeling splendidly, and on that day her physician had made an examination and assured her

that the tumor had entirely disappeared. Of course this statement is taken with a grain of allowance.

CASE II. Miss E., æt twenty-two, delicate and frail of form, had been suffering for two years from painful menstruation, with constant pain and weight in pelvis, for which she consulted me May 3, 1895. Upon examination I found the cervix very low down, almost protruding through the os vagina; this uterus was large and sensitive, and springing from the posterior wall was a tumor the size of a lemon, the uterus and tumor quite filled the pelvic cavity.

Two days later I ligatured both uterine arteries, as in the previous case. While the patient suffered little from the shock and pain, she vomited severely for two days. She left her bed on the tenth day and returned home in a fortnight. June 5 she visited me at my office and stated that she felt much better. Upon examination I found that both the tumor and the uterine hypertrophy had been greatly reduced, and the tenderness was much less. Up to this time she had not menstruated, and called more especially to consult me about this matter.

Both operations were quite difficult to perform, owing to the smallness of the vagina and in the first the elevated position of the cervix.

When we compare this simple and safe procedure with hysterectomy with its attendant mortality and consider this almost total absence of shock, the slight inconvenience resulting from it, and the prompt improvement that followed, we cannot but think that it is an operation worthy of the most serious consideration at the hands of the operating gynecologist.

MAMMARY ABSCESS.

BY

WILLIAM C. RICHARDSON, M. D.

THE subject-matter of this paper was brought to mind by the occurrence in my practice recently of three unusual and extraordinary cases of mammary abscess not connected with lactation. The first occurred in a young married woman, who was not and never had been pregnant. The abscess was of the superficial or parenchymatous variety, but deep enough to involve the glandular structures of the breast. The second was in a woman who had borne three children, the last two years previous to the abscess, and lactation had ceased over a year prior to the appearance of the abscess, which was of a deep, granular nature and very extensive in character. This case was so entirely dissociated from lactation and gestation that the very reputable homeopathic physician in attendance did not even consider the breast trouble at all, and was treating the case as one of the peculiar types of typhoid fever prevalent at that time. The third case was in a woman who had borne one child, and that had been weaned over three years before the appearance of the abscess, or rather, abscesses, which, in her case, were of the superficial recurrent variety. It is but fair to say, however, that this woman was six months advanced in pregnancy at the inception of the mammary trouble.

The bacterial pathologists of the present day hold that mammary abscess is always the result of germs introduced into the structure of the breast, through abrasions of the integumentary covering, or excoriation and fissure about the nipple, incident to nursing.

This microbe or germ theory seems to have gained a very strong foothold in the profession, as evinced by the

utterances of one of the latest and best obstetrical authorities, who says that "In light of our present knowledge, it is almost heresy to consider puerperal mastitis as due to any other cause than infection through germs that gain entrance to the lacteal ducts, thereby causing inflammatory processes."

A reference to the discussions of the Institute at the last session will show that the bacterial theory of the causation of mammary abscess was and is largely held to be correct by members of our own school. To me, notwithstanding all this, it is a theory that lacks solid foundation and is fallacious in the extreme. There is, of course, no question about the finding of microscopic germs in mammary abscess, but that they are the cause rather than the result of suppuration of the glandular structure is not well proven. Nearly all cases of mammary abscess are connected with lactation, nursing, and sore nipples; but the three cases above referred to, in neither of which was there any soreness of the nipples or integument, furnish proof that this is not always true, and they show conclusively that we may have mastitis and suppuration without the nipple or integument around it being at all open for the entrance of germs.

It is very strange, indeed, that in the treatment of this disease, such practitioners as hold to the germ theory resort to the remedies they do, while all look to the evacuation of milk from the breast, and an antiphlogistic treatment generally, instead of at once resorting to germicides, as they should do if their theory was correct. The probabilities are that the largest number of cases of mammary abscess result from the obstructed or arrested flow of milk through the ducts; and this obstruction produces congestion with resultant inflammation and suppuration. Congestion and its concomitant results may be caused as readily from the mechanical pressure incident to an obstructed milk duct, and consequent collection and inspissa-

tion of milk, as to the presence of any other foreign body. It would be just about as reasonable to insist that the effects of a splinter or other foreign body thrust into the breast, causing inflammation and suppuration, was the result of germs, as to say that the same kind of inflammatory results could not be caused by the obstruction of the milk ducts.

TREATMENT OF MAMMARY ABSCESS.

Of all the annoying, aggravating, and unsatisfactory conditions which are incident to the post-parturient period, none are so vexatious to the practitioner in the treatment as the mammary abscess. The long train of painful symptoms are too well known to enumerate or elaborate in a paper of this kind, and we shall not undertake to go into details of this kind, but will at once proceed to make a few suggestions relative to the treatment, which should be prophylactic as well as curative.

In case of sore nipples, either of excoriated, fissured, or ulcerated variety, the nipples should be looked after first, as a preventive measure, and the hardening process, as recommended in most of the text-books to be used prior to delivery, will be found frequently of great benefit. I think perhaps the best preparation for hardening the nipples will be found in a glycerole of tannic acid applied once or twice a day in the last month of gestation. Where the nipples are actually inflamed and sore, then the glycerole should be of arnica or hydrastis rather than tannic acid, although the latter will be found useful also. Powdering the excoriated or fissured surface with the first decimal trituration of hydrastis, and dressing with dry absorbent cotton, is also a very neat and quick way to relieve these cases, and it is only necessary to add that all dressings should be aseptic.

Another thing is the absolute necessity of keeping the breast empty. If this cannot be accomplished by means of voluntary nursing of the child, without or with a prop-

erly adjusted nipple shield, the breast pump should be resorted to. Massage made persistently and faithfully for a day or two, being careful that the friction is always made from the base of the breast upward to the nipple, and with the hands anointed with vaseline, will have a very beneficial result. This should be resorted to on the first appearance of the induration. I think, in the majority of the cases, as soon as there are indications of the inflammatory development in the shape of hardness and tenderness, continuous pressure should be resorted to promptly. There are various methods of effecting pressure. Any one of the numerous varieties of bandages recommended by textbooks, properly applied, will be found useful in exerting pressure after the breast has been first carefully and evenly padded with cotton. The most convenient, most readily applied, and satisfactory form of pressure, so far as my experience goes, may be secured by carefully adjusting adhesive plaster, and, if there is an abundant secretion of milk, it should be belladonna plaster. Strapping the breast with plaster, as ordinarily recommended, is a somewhat tedious and unsatisfactory procedure; and the simplest way to secure the best result with plasters, either medicated or plain, is by means of a large piece of the adhesive material, sufficient to cover the entire breast, cut in the shape of a Maltese cross, with a hole in the center for the nipple. The plaster should be applied from the base of the breast toward the nipple, care being taken to apply it taut and evenly, drawing it as closely, firmly, and neatly to the breast as possible. This may be permitted to remain several days, until the symptoms of threatened inflammation have subsided, or if some amelioration and subsidence is not manifest at the end of the first twenty-four hours, it may be removed, and after the thorough practice of massage the plaster should be again applied. By scrupulous cleanliness and the foregoing measures we can prevent, almost to a certainty, the formation of mammary abscess.

It will happen sometimes, however, in spite of all the precaution, ante-natal and otherwise, and in spite of all the cleanliness and everything else that can be secured, we will have a case that will go on to suppuration. The prompt and immediate treatment of these cases is of the utmost importance, as the formation of pus should be detected at the earliest moment possible. The needle should always be inserted at the most dependent part of the breast, where the indications of pus are present; and when its actual presence has been determined to a certainty, a grooved director should be inserted in the same hole from which the exploring needle has been withdrawn, and the opening enlarged by means of dilating with scissors or other dilator, rather than by cutting with a lancet. The old method of cutting the breast freely with a lancet effected the purpose of evacuating the pus freely, perhaps, but at the same time resulted in the severance and destruction of many healthy milk ducts, which is unnecessary and always to be avoided, if possible. The opening should be made sufficiently large to permit of the introduction of the operator's index finger, which, after thorough asepticization, should be carried into the pus pocket and an exploration made into the adjacent tissues, breaking down any cavity walls which may conceal other pockets. The patient is, of course, anæsthetized during this procedure. After the thorough evacuation of pus an injection of peroxide of hydrogen should be given, after which the drainage strip of gauze should be inserted, and the opening maintained as long as there is any discharge of pus, with daily injections of the peroxide. The dressing is not complete until a large, flat sponge, such as is used in laparotomies, or a mass of absorbent cotton, has been applied and pressed firmly to the breast by means of a proper bandage. The sponge or cotton should be thoroughly aseptic, and applied so as to maintain even pressure over the whole breast. These applications will generally be

more agreeable and beneficial to the patient if put on as hot as can be borne, and in cases where pressure cannot be borne, a hot aseptic sponge or cotton will be found useful. In all these manipulations the most scrupulous and thoroughly aseptic precaution must be observed. The use of poultices, lotions, etc., all teeming with bacteria, as resorted to by old time practitioners, almost justified the early homeopaths in their opposition to any surgical measures for the relief of mammary abscess. We know now, however, that by a thoroughly aseptic and intelligent surgical treatment this almost purely surgical condition may be relieved safely and comparatively speedily.

Notwithstanding the fact that I consider mastitis a surgical disease, I still am a firm believer in the efficiency of the homeopathic remedy in the treatment, and would suggest the following :

Belladonna, when the breasts feel heavy, are very hard, and the redness runs in radii, accompanied with pulsating pains, high fever, headache over the eyes, constipation, and scanty urine.

Belladonna, stonelike hardness of the breasts, which are hot, painful, but not very red ; great stitching pains in breast, worse from the slightest motion.

Graphites in cases where there are many old cicatrices from former ulcerations, that the milk can scarcely flow.

Hepar sulph., when suppuration seems inevitable.

Lachesis, where the breast has a bluish or purplish appearance ; lancinating pains in the mammæ ; pains down the arms.

Mercurius, especially if transient chills or throbbing indicate the probable formation of matter ; also in cases where suppuration takes place in different parts of the breast.

Phosphor., phlegmonous inflammation, breast swollen ; red in spots or streaks ; hard knots in different places, with fistulous openings, with burning, stinging, and watery discharge.

Phytolacca, "gathered breasts," with large fistulous, gaping, and angry ulcers, discharging a watery, fetid pus. In ordinary caked breasts it is called specific.

Silicea, in cases where phosphor. is not sufficient to heal the fistulous opening with callous edges, or to disperse the hard lumps in the breast, or where the discharge is serous.

Sulphur, suppuration of the mammæ, with chilliness in the forenoon, heat in the afternoon.

INFECTIVE INFLAMMATION INVOLVING THE CERVIX UTERI AND THE CERVICAL CANAL.

BY

E. STILLMAN BAILEY, M. D.

INFLAMMATION of the cervix uteri may exist independently of like lesions in the body of the uterus. This is particularly true in the chronic forms of the disease. The acute inflammation may spread with uniform rapidity and involve all the tissues connected with the generative organs. The cause of the inflammation is known to depend upon the kind of irritation or injury, usually understood to be one of three causes—mechanical, chemical, or thermal. In my short paper on this subject I wish to call attention to the study of the inflammation as above cited, from a clinical rather than a text-book standpoint. It is a part of the duty of a practitioner to adjust the demonstrations of the laboratory to the findings in practice, or to disprove theory that does not support fact. For many years the cervix uteri and the cervical canal were observed and treated mildly or heroically, almost to the entire neglect of the endometrium or uterine appendages. All the inflamed tissues that could be seen through the open blades of a speculum were held to be the seat of the diseases, and treated accordingly to a certain line of arbi-

trary and routine teaching, handed on from one to another. with results that were, to say the least, variable and quite unsatisfactory. Was it that the cause was not determined? To my mind the answer is a positive yes. How many practitioners at the present time regard simple inflammation as a reparative process, and its activity and its mission to save rather than to destroy, its area limited and its chronicity a myth? The chief characteristics of infective inflammation is to destroy. Its tendency is not to remain local, but to spread and to involve surrounding parts, and that, in the great majority of cases, terminated in suppuration. Clinically considered, the inflammation of the cervix uteri and the cervical canal answer this description. The infective inflammation is due in all cases, first, to the entrance from without into the tissues involved of certain micro-organisms, and they act in the cells of the body according to their own peculiarity of life and organism; second, that the kind of bacteria determine the virulence of the destructive processes and the chronicity of the cases; third, that the numbers of bacteria introduced have much to do with destruction, both as to the danger of life and the danger of destruction to parts. So frequently have these truths been demonstrated by the surgical methods used at the present time, that to those who have not the opportunity to witness the results it may come like any other form of didactic teaching, that where there is chronicity of inflammation, with destruction, non-healing, and symptomatology direct and reflex, that the causes exist not only by the presence of the bacteria, but from the generation of their toxic and irritant products. We know of a large number of bacteria, both pathogenic and parasitic, but they do not all excite inflammation, and the resisting powers of the tissues upon which they are implanted modify their clinical significance. Inflammation is a protest, in many cases, on the part of the tissues against the toxins of an invading organism. In fact,

infection may take place without resistance, but inflammation never occurs unless resistance is offered. As tissues approach death, their inflammatory vigor diminishes in an equal ratio. Thus, in all inflammation antagonism is necessary. It is demonstrable in living tissues that cell activity and antagonism is most typically exhibited toward living microbes and less toward toxins and chemical irritants.

Do we not have in the application of these principles of infection and inflammation to the inflamed cervix uteri and cervical canal a satisfactory explanation of cause and effect, and, to a certain extent, the indication of curative methods of treatment? By far the greatest cause for inflammation of the uterine cervix is the mechanical one of injury during parturition or abortion, the traumatisms, and the lacerations. In the absence of bacterial infection the torn cervix will heal as readily as tissues elsewhere in the body, the repair is as perfect, and leaves the tissues as free from disease as before parturition. Even if coaptation should not happen, the epithelium is restored, and the characteristics of inflammation are nowhere to be found. I do not think you wish me to repeat the description of the lacerated and infected cervix in all its varied appearances. You know the picture too well. The struggle to repair, the improvement under treatment and care, and the relapse under neglect, all can be summed up in one sentence: nature's antagonism is nullified, the tissues are held by the enemy, the pathogenic or parasitic microbe. The fight now is an unequal one. The laceration was the avenue of their entrance; what of their departure? Evidently, from clinical experience, it is the utter rout of all the germs, together with the necrotic tissues they have caused, and the hypertrophies built up about them to prevent further invasion. This is the lesion of infective inflammation, involving the cervix from lacerations of all kinds. Another and second great source of infection is the

introduction of filthy instruments and examining fingers against the tissues that are already burdened by the presence of the foreign irritants, thus in reality reinfecting the same cases. The infective inflammation involving the cervical canal deserves closer study than it has received. Its peculiar anatomical construction is such as to successfully antagonize the entrance of hosts of infective agents. Its ten thousand glands, with mouths opening outward and tiny drops flowing in a stream of chemical combination at once inimical to bacterial life; its spiral curve in projection of the discharge, not unlike the stream of urine as forced from the urethra, and its second sphincter or os internum, always closed to guard the secrets of the womb; its hypertrophy of gland tissues that furnish the major part of the cervical ectropium; its swelling that narrows its lumen; its vascular supply that furnishes the watery portion of secretions at such incredible amount when irritated by parasitic presence or chemism of toxic elements, or foreign elements of any kind. No tissue of the body is so repellant, and when infection is present in an overpowering equation its resistance is feeble and its cell recuperation exasperatingly sluggish.

One word in regard to treatments: The clinical suggestions must sometime prevail, and shall yet harmonize with the causes of the disease. The best cure for cervical cases is to prevent infection. This is now being done by the accoucheur. As septic fevers in the lying-in are diminishing, so are septic inflammations of the cervix uteri, and also of the cervical canal, as well as metritis and endometritis. The removal by chemism, by curette, by knife, and by washing is strictly warrantable, whichever is most adapted to the individual case. One reason why this reform in treatment has been so long on the way is the real ignorance of the cause, or the willingness to accept it as binding on these cases which at once are the simplest, yet the most perplexing and persistent of any that comes

to the gynecologist. The list of symptoms—local, remote, reflex, and recurrent—are radically removed only when the infective cause is expelled.

PELVIC PERITONITIS.

BY

ALONZO BOOTHBY, M. D.

IT is a well-known fact that the reproductive system is an important part of a woman's physical organization. If only a casual study of the pelvic organs is made, it will be found that they have a peculiar and complicated construction, due to the fact that they have such a wonderful function to perform. Then it is found that nature has so arranged it that this reproductive system is intimately associated with other organs which have to do with the physical functions of the individual. This combination of functions has greatly increased the danger of involvement of parts entirely different from the organ or tissue originally affected, and has made the study of pelvic diseases of great importance on account of the liability of other parts becoming involved. Every text-book describes how accidents are liable to occur in the process of bearing children and the dangers that are encountered in connection with sexual intercourse.

From the nature of things the pelvic organs would be peculiarly liable to inflammation. There is found what would seem likely to occur, a tendency for inflammation in one part of this sexual apparatus to extend to other parts. This would render it necessary, in order to pursue an exhaustive or systematic study of an inflammation in one part, to consider its origin and the direction in which it is likely to extend. The gynecologist has to do principally with pelvic inflammation and pelvic new growths. A

branch of the former, pelvic peritonitis, demands special attention on account of its frequency and the dangers that attend it.

The vagina and the uterine cavity are the most exposed organs, and it is in them that inflammation most frequently begins. By a brief reference to the anatomy of the parts it is found that the vagina has the neck of the womb projecting into its upper extremity. The uterine cavity leads from this passage to the fundus of the womb, and from each side of the fundus there extends a long, narrow tube, which opens directly into the peritoneal cavity, in which is situated not only the ovaries and the womb itself, but the bowels and, in fact, all the abdominal organs. This gives a long, indirect canal, of variable size, leading from the external surface of the body into one of its most vital centers. The situation is rendered still more complicated by the periodical rupture of a Graafian vesicle on the surface of the ovary, near the internal opening of the fallopian tube. Inflammation of the endometrium is of frequent occurrence, and is liable to happen within the cavity of the uterus as well as the different forms of bacteria. It is, as nature undoubtedly intended it should be, very difficult, when the parts are in comparative health, for these poisons to extend through the tube out into the peritoneal cavity. The long fallopian tube, with its small caliber, has its mucous membrane so constructed as to favor the passage of its contents downward to the uterus. It would seem, also, that the structure of this tube is such as to give great resistance to inflammatory processes, although its fimbriated extremity may take on an adhesive inflammation, so as to close the outlet of the canal. Notwithstanding all the efforts nature has made to guard this portal, the fact remains that in their normal condition there is a continuously open canal of sufficient size to admit a medium-sized probe extending from the uterine cavity, through the peritoneum, which is lined with a mucous membrane contin-

uous with the endometrium. If an inflammation is set up in any part of this mucous tract, it may extend out along the tube into the abdominal cavity, and peritonitis would be the result. This is demonstrated by the condition that is found where the tube is adherent on its sides for its entire length, while its extremity is closed, and inflammation is not so intense at that part. It is also shown where there is a pyosalpinx. Probably the distention of the tube by an accumulation within changes its hard, cartilaginous-like middle coat, so that it affords less resistance to the passage of the septic matter. In certain acute inflammations the lymphatics carry the septic matter along into adjoining tissues, producing what is known as diffuse inflammation. The result is, first, a cellulitis, and then the peritonitis.

The introduction of the sound into the uterine cavity for the purpose of diagnosis, and the application of caustics, astringents, and various irritants to the endometrium, has been followed by pelvic peritonitis. The use of the pessary may also be recorded as one of the causes.

It is probable that in some cases the inflammation, instead of passing out through the extremity of the tube, extends through its walls, affecting first the serous membrane which covers it. The anatomical structure and the relation of the organs contained within the pelvis, and just above it, which are necessary in order to carry on all their functions, and especially the process involved in conception, gestation, and labor, expose them to assault from many different sources.

The question is frequently asked, Why is it not necessary to remove the testicles in the male as often as the ovaries in the female? It is seen that this question is an absurd one when you consider the anatomical construction of and the different functions performed by the two systems of organs. It is vastly more dangerous to bear than it is to beget offspring. It is true that if no accidents

occur, and all the conditions are in perfect accord with nature in regard to the sexual relations, the danger is very slight ; but when the excesses and exposures are taken into account, with the dangerous efforts to prevent conception or to interrupt it prematurely, the wonder is that so many escape serious troubles.

But, it is said, these dangers do not all apply to innocent, immature girls. This is true. Still, the girls are exposed to dangers on account of what they are prepared to do, much beyond the boys. Pelvic peritonitis frequently occurs in girls and young unmarried women. Until quite recently the pathological condition has not been understood, and these attacks have been attributed to various causes and have been called by various names. Inflammation of the bowels is what the trouble has most frequently been called. In a few cases the diagnosis was, to a certain extent, correct ; but even then it had its origin in that portion of the bowels known as the *appendix vermiformis*. It took the medical profession a long time to learn that a very large portion of cases of peritonitis was the result of appendicitis or salpingitis, and that the latter is much more frequent than the former.

A little digression may be allowed here in order to refer to the present fashion of condemning operations for inflammatory diseases of the tubes, and such other parts as may be equally involved, when these same reformed surgeons and conservative physicians would advise the removal of the appendix for a single or a few slight attacks of colic. However, the careful and conscientious surgeon will keep on his course and operate when a reasonable effort with other measures has been made, but the trouble still goes on, and threatens the total destruction of health or the life of the patient, or to leave her a chronic invalid.

Reference has been made, in a general way, to some of the causes of peritonitis. The term pelvic peritonitis is not a very definite one, or, perhaps, it would be better to

say, that it is not broad enough. There is no line of demarkation between the peritoneum of the pelvis and that of the abdomen, and there is nothing to restrict the commencement of an inflammation in either part, only the location of the entrance of the infective poison. As the inflammation is most frequently an extension through the opening of the tube and through its walls, it follows that the lower part of the abdominal and the pelvic membrane would be first, and when it remains localized, the only part attacked, this being the part with which the poison comes in contact.

It is a matter of some interest as to what part accidents during menstruation play in causing local peritonitis. It is known that a sudden cold with disturbance of the menstrual flow, as also excessive coition, has been followed by peritonitis, which is generally of a catarrhal type. The thickening of the tube by congestion may produce a pressure which would force septic matter out through the extremity of the tube. It is more probable, however, that the cold, acting upon the parts as it does upon other tissues, especially the mucous membrane of the nose and throat, lowers their vitality and lessens their power of resistance to the germs of inflammation which had previously been held in check, but were ready to develop and multiply in a favorable soil and spread along and out through the opening at the fimbriated extremity or by an extension through the wall of the tube. It is found that after severe physical exercise, where the abdominal muscles have been brought into sudden action, there follows an attack of peritonitis.

A patient under my care was taken with pain and soreness in the pelvic region, with all the symptoms of a mild peritonitis, which would seem for a time to be cured, but would recur on taking cold or overdoing, so that she was in constant fear of an attack, and her general health was being undermined, and she had entered upon the first stage

of chronic invalidism, so often called nervous prostration. No doubt there are pelvic disturbances which have their origin in a disturbance of the nervous system, and some of them will be cured by directing the entire attention to the neurasthenia ; but there is a large number of cases where the trouble begins and is kept up in the pelvic organs by some local cause acting directly upon the exposed surface.

After the patient had been treated for more than a year, with the result that at the end of this time she was in worse condition than after the first attack, it was decided to make an exploratory incision in order to determine the exact location and cause of the disease. This revealed the tube irregularly enlarged to from twice to three times its normal size. On one side the fimbriated extremity was adherent to the peritoneum in close proximity to the ovary, completely closing the cavity. Portions of the tube were of a very deep red color, and the whole surface showed a condition of active congestion. One ovary was contracted to less than half the normal size, showing on its surface that corrugated, whitish appearance which is so frequently found in cases of pelvic disturbances with marked neurasthenic symptoms. The other ovary was in a state of cystic degeneration which had involved a large portion of its substance. It is interesting to note the fact that the appendix was also seriously involved, so as, in the judgment of the operator, to require removal. As far as could be ascertained, the origin of the trouble was a severe strain and pressure upon the lower part of the abdomen by posing for a "living picture." It seems probable that this posture, being continued for several minutes with the parts of an abnormal position, which rendered them less capable of resistance, the material in the tube was gradually forced along and out into the peritoneal cavity, or the strain and pressure may have been followed by a relaxation so as to allow the septic matter to escape more readily and have produced an inflammation there. At least, there was no

other cause found to account for the first attack, and the same is true of other cases which have come under my observation.

This may be the way that a specified poison, like gonorrhea, which has been latent for a long time, finds its way into the peritoneum.

Besides the causes of pelvic peritonitis given above, we should mention septic involvement of the endometrium following labor or miscarriage, which, in some cases, extends rapidly and by its virulence forces its way through all barriers. Gonorrhea frequently extends through the uterine canal and the fallopian tube into the abdomen, as has been demonstrated repeatedly by finding the gonococcus in this cavity. Since gonorrhea has been found to be the cause of so much pelvic disease, it is looked upon in the woman as of vastly more importance than the older physicians regarded it.

Tuberculosis may attack the pelvic peritoneum, usually first involving the tube and extending through it to the peritoneum.

These causes produce the disease in the mucous membrane and the serous membrane, without involving to any great extent the tissues beneath. There is a puerperal septic inflammation which involves the uterine tissues and the surrounding cellular tissue, producing not only metritis but a true cellulitis; or the inflammation may not be confined largely to the broad ligament on one or both sides. As compared to peritonitis, however, cellulitis is of rare occurrence, and almost invariably follows the puerperal state, and is not a factor in most cases of the disease under consideration.

It is remarkable to find that when the abdomen is opened, where the pelvis is full of the products of inflammation in various forms and degrees, and roofed over with a membrane almost as firm as the resembling peritoneum, when cleaned out it leaves the uterus and connective tissue

but slightly involved. In many of these cases the vaginal examination would not be sufficient to differentiate between peritonitis and cullulitis.

However, there are symptoms which help in making a diagnosis. Only an indefinite description of these can be given, and only practical demonstration will make them available. In both conditions the touch would reveal the uterus more or less fixed and harder than natural; the posterior *cul-de-sac* filled with a doughy, or indistinctly fluctuating mass, which projects into the vagina; or the swelling may be on one side, apparently in the broad ligament, pressing the uterus over to the opposite side. Without the use of the sound (which should not be resorted to in ordinary cases, because it is liable to increase the trouble) it requires care to decide which is the uterus and which is the swelling or tumor. Sometimes in cellulitis the thickening will be apparent all around the cervix, which very rarely occurs in pyosalpinx with peritonitis. On inspection, the neck of the womb shows more symptoms of acute congestion than in the latter.

The following case will in some measure illustrate the difficulty of making a correct diagnosis from the symptoms or by examination. Mrs. R., who has previously suffered for a number of years, dating from the birth of her only child, had an attack of what her attending physician diagnosed as inflammation following some disturbance of the menstrual function. As she did not improve under treatment, he made an examination and found the parts in a comparatively normal condition. Later, he found it necessary to make another examination, because the patient had continually grown worse. At this second examination he found a slight enlargement, apparently in one broad ligament. This enlargement increased very rapidly in size, so that at the end of about ten days from the commencement of the attack it had reached the size of a large orange. Patient's temperature ranged from 99° to 100°;

pulse, 85 to 90. The pain was not very severe, and it was only on pressure over the lower part of the abdomen that tenderness was detected. Examination by the touch at this time revealed a swelling, which projected somewhat into the vagina, filling almost the entire pelvis and crowding the uterus over to the opposite side. It required very careful palpation to differentiate between a symmetrical enlargement of the uterus and enlargement involving the broad ligament of the right side. It was just such a case as has been designated pelvic cellulitis, and it was impossible to determine by the touch that this thickening was not in the broad ligament between the two layers of the peritoneum. If this were cellulitis, the treatment would be free incision through the vagina. If it were an inflammation with a pus formation in the fallopian tube or ovary, or both, the most satisfactory method of reaching it would be by abdominal section. If the ovary were involved, there would be a great possibility that the tube was also seriously involved so as to contain pus. This would give two separate cavities, and with the probability that only one would be reached by the incision through the vagina. It would certainly leave behind all that mass of diseased tissue surrounding the pus cavities, and would leave open and undisturbed the canal through which the poison had entered the abdomen and brought about the serious condition which threatened the patient's life.

Abdominal section was decided upon, and was found that the ovary contained a large quantity of purulent matter and pus, while the tube was an inch in diameter in its largest part, covering a large portion of the ovarian cyst. The two masses completely filled the pelvis, and were adherent to the whole of the serous membrane of this cavity and that covering the uterus. All of the diseased tissue was cleaned out, leaving the peritoneum roughened and congested, but with apparently no involvement beneath the surface of that membrane. While the original and prin-

cipal disease in this case was in the tube and ovary, yet pelvic peritonitis was an inevitable accompaniment, and it was the involvement of this membrane which produced the immediate danger. The appendix was also found congested and somewhat thickened, but the severity of the pelvic operation, and the fact that it was possible that some septic matter had been left in the abdominal cavity, made it seem for the patient's interest to leave it alone. Complications of this kind are not infrequent, and it is an interesting and important point to be decided in treatment, how many of the symptoms depend upon one or the other of the local inflammations. In a number of cases, where I have found the appendix involved to a considerable extent, in fact, much beyond what has existed where an operation has been made solely for the removal of the appendix, but where only the appendages were removed, the patients have made a complete recovery. It is very desirable that all those having cases on which they operate for the removal of the appendixes note the exact condition of the appendix, so as to determine whether these slight changes in its appearance prevent complete recovery. It is also desirable to note whether the pelvic cellular tissue is so far involved as to be detected when the operation is made.

After having opened the abdomen a great many times, in cases similar to the one just mentioned, and never having found the pelvic cellular tissue involved to any appreciable extent, my own experience would certainly lead me to decide that pelvic cellulitis is a very rare disease, and almost never exists, except where it follows the puerperal condition. Not until abdominal section and the removal of the diseased tissue was adopted as a means of cure did the gynecologists arrive at a correct diagnosis. It is one of the objects of this paper to call attention to the frequency of pelvic peritonitis are compared with pelvic cellulitis. It is true that a large number of physicians have adopted the

later conclusions upon this point. In 1884, however, Emmett, in his work, says, "Yet, whatever the exciting cause, pelvic peritonitis cannot exist alone, but must rapidly involve the cellular tissue in its vicinity." He says further, "I shall employ the term cellulitis as expressing the most common condition of pelvic inflammation in connection with the non-puerperal diseases of women. I do not exaggerate when I assert that pelvic cellulitis is by far the most important disease with which woman is afflicted."

It is presumable that by this time Dr. Emmett has changed his opinion in regard to the pathology of pelvic inflammation. Still, when so eminent an authority, in so recent a work, makes such unqualified statements in regard to pelvic diseases, it is well to call attention to facts demonstrated by clinical experience directly contradicting those statements. The "American Text-Book of Gynecology," published in 1894, in speaking of pelvic inflammation, says: "The results left in the train of an inflammation beginning in the uterus, extending into the fallopian tubes, and from thence into the pelvic cavity, are widely variable. In the tube they extend from a slight salpingitis to a pyosalpinx; in the peritoneal cavity, from a mild attack of local peritonitis to a general suppurative peritonitis and cellulitis; . . ." On the other hand, the "American System of Gynecology," in 1887, says, "Pelvic cellulitis, pure and simple, is a rare disease. It is most commonly met with after parturition, and is associated with an evident septicæmia. The inflammation is not confined to the cellular tissue, but usually involves also the endometrium, the membrane lining the tube, and the pelvic peritoneum." In 1890, Goodell wrote, "I come now to a subject of infinite importance, but one of obscurity, so far as its pathology is concerned. This subject is that of inflammation of the serous and areolar tissue surrounding, enveloping, supporting, and padding the womb and its appendages. . . . The questions yet unsettled about these forms of

inflammation are: Which tissue is the one most frequently involved? . . . While eminent gynecologists, especially the older ones, hold that the areolar tissue is the one more frequently attacked, and that the inflammation is essentially a cellulitis, or phlegmon, a brilliant group of younger investigators, contend that 'cellulitis must be dethroned from the prominent position it has held in uterine pathology,' and that pelvic inflammation is essentially one of the serous tissue, or peritoneum. . ."

By these quotations it is shown that few of the textbooks have advanced far enough to take a positive stand on the exact location of pelvic inflammation. The medical journals, however, contain the results of the observations made by almost all operators, demonstrating the location of the inflammation in the peritoneum, without involving the cellular tissues to any marked extent.

As pelvic peritonitis does not exist without some previous disease, it is impossible to give any consideration to its treatment without, at the same time, embracing the treatment of many of the pelvic inflammations. But as it is the accompaniment and an important factor in a large portion of them, it seems proper to discuss treatment from this standpoint.

Mild attacks, when there is only a catarrhal involvement of the serous membrane, involving, perhaps, only the fimbriated extremity of the tube, recover by giving the appropriate remedy. In more severe cases, or where there have been recurrent attacks, but where pus cannot be detected, or is not suspected, to the remedy may be added such local means as hot sitz-baths, or hot fomentations across the bowels, and hot water douches. If the cause can be ascertained, measures directed to its removal must be used first. When it is due to an extension of an endometritis out into the tube, then dilatation of the cervix and curetting of the uterus will be a very important means toward a cure. However, care and discretion should

be exercised in the use of these measures. When there is a pus cavity beyond the curetted surface, there is danger of increasing the trouble and especially of aggravating the pre-existing peritonitis. Under such circumstances, the danger would be greater from curetting than from a cœliotomy and the removal of the pus center. The curette has done much good, and it has also done harm, and in the hands of a careless and incompetent physician is a dangerous instrument.

The use of tampons of wool, medicated with iodine or glycerin, or some of the many preparations which are recommended in text-books, may be of benefit. Sometimes there is a displacement of the uterus, which is keeping up a pelvic irritation, but the organ should not be held in place by a pessary, as it is almost sure to aggravate the symptoms.

With the most careful and judicious treatment continued for a long time, the disease extends and grows more severe, or it may progress rapidly, so that the patient is in great danger. It is then that operative measures must be adopted.

What kind of an operation shall be made? The principle that has governed my own operations is this: To select the one that is least dangerous, while it allows of the removal of all diseased tissue, so that a complete recovery may be expected.

When the womb is involved to such an extent as to be an important factor in the case, vaginal hysterectomy should be performed. It is difficult always to determine when the womb is diseased to such an extent that it will not readily return to a healthy state. It is true that when the ovaries and tubes have been removed the uterus becomes entirely useless. Experience is giving constant demonstration of the fact that a woman can be perfectly well without the pelvic sexual organ, and it is an opinion that seems to be gaining ground that a patient is, as a rule,

better off to have the uterus removed with the ovaries than when it is left behind. If this is true, then in these cases the important question is as to the relative amount of danger. But quite a number of cases can be entirely cured by *cœliotomy*, and the removal of uterine appendages, in which the trouble is principally located. One important advantage in this method is that no more need be removed than is involved, and it is possible that the child-bearing function can be retained, a result always to be sought for if the patient has not reached or is not close on to the climacteric. Our utmost effort is to be put forward for the best good of the patient, and it seems self-evident that a surgeon should be desirous of making such an operation as would restore health and, at the same time, disturb the normal functions of the body as little as possible.

There is a great deal of talk about unsexing a woman and about the other ovary. It is to be sincerely hoped that there is no one connected with this section or with the Institution, whose morals are so low and who is so entirely destitute of regard for his fellow beings as to willingly mutilate one who has trusted her life and earthly destiny in his hands. The subject is not one to be spoken of jestingly nor with ridicule, nor is it one that can be put in its proper light by flippant caricature. Excepting for her good, may the hand become palsied before it shall hold a knife against one of our suffering sisters or wives or mothers!

A VAGINAL HYSTERECTOMY.

BY

CHAS. E. WALTON, M. D.

A FEW weeks ago I performed a vaginal hysterectomy for the following conditions: The patient, aged forty-three, had been suffering from uterine hemorrhage for many

months. The anæmia was so marked that the color of the skin looked as though a cancerous cachexia were present.

Examination revealed a movable uterus with a small tumor close to the left corner well down behind the pubic bone. Whether this was a cancerous nodule or a fibroid tumor was a question not easily solved. January 18, 1895, a thorough curetting brought away a good deal of granulated material, and it was hoped that the bleeding would cease. At the next period the flow, though less, was altogether too profuse, and the two following periods found the patient pretty thoroughly drained. A hysterectomy was then decided upon. Before the operation the pulse was over 80, rather full and regular. The anæsthetic was chloroform. During the operation the pulse got weak enough to justify a hypodermic of whisky. Very little blood was lost, the uterus was enucleated and not a vessel was ligated. The tumor proved to be a subperitoneal fibroid. For hours after the operation the pulse was 140 and very feeble. One-fortieth of a grain of strychnine nitrate was given. No change in pulse for the better. In two hours the strychnine was repeated with no perceptible effect upon the pulse, which rose to 160. The feet were cool, the skin of the lower extremities covered with a cold perspiration. The heart was fast losing its tone. Eight hours after the operation I injected into the cellular tissue of the thigh one pint of water at a temperature of 120 degrees containing one dram of salt. Three hours later the patient was warm, the sweat gone, the pulse fuller. Two doses of strychnine were administered per orem through the night. The next morning glonoin 3x was given every hour, and the patient made a continuous improvement, and was sent home in five weeks.

The use of the saline injection seemed to be the turning point in the case. After excessive loss of blood, as in *post-partum* hemorrhage, it is said to be of great value, and should be thrown directly into either the arterial or venous

circulation. Where it is thrown into the blood vessels the salt is absolutely necessary to prevent coagulation; when into the cellular tissue, it promotes absorption.

I chose the anterior surface of the thigh so that the subsequent soreness would not interfere with the comfortable lying of the patient. This expedient may be as valuable to others as it was to me.

Questions suggested by this subject are: How do you treat shock? Is the salt water injection applicable to those cases of shock due to injury of the nervous system as well as to collapse from blood loss? Where shall the solution be injected, first as to locality, second as to tissue. How shall the injection be made, by gravity or direct pressure? Other questions will likely be suggested by those who are interested in determining the best way to overcome shock.

THE REMOVAL OF THE UTERUS AND UTERINE APPENDAGES THROUGH THE VAGINA.

BY

HOMER I. OSTROM, M. D.

VAGINAL hysterectomy has become a well-recognized surgical procedure, and as such calls for no discussion in this place, but the possibility and advantages of entering the pelvis by means of the vagina for operations upon large tumors, and pelvic abscesses from any cause, has not until recently been sufficiently appreciated. To this part of the subject, which the title of my paper is intended to include, and emphasize, I desire to call your attention.

That a vaginal hysterectomy can be performed with less surgical reaction than the same operation accomplished through the abdomen is a matter of daily experi-

ence. Just why this is so it is difficult to explain, save upon the ground that the technique involves less manipulation of abdominal viscera, especially of the intestines. Patients after this operation recover without a rise of temperature, without pain, and I think with more rapid convalescence, that is, with less of the general weakness that seems almost to belong to, and to be a part of, all abdominal operations. One thing I have especially observed, there is less gastric disturbance and intestinal sluggishness after the vaginal than there is after the abdominal operations.

I do not find that removal of the ovaries and tubes either complicates the operation or increases the attending risk, but for reasons which I have on other occasions stated, unless necessary, I do not include those glands in the amputation, believing that they fill a very important place in the animal economy, and that they should not be removed simply because the uterus is diseased. In point of fact, however, the class of diseases that calls most frequently for hysterectomy usually demands that all organs and structures in any way connected with the pathological center, should, as a precautionary measure, be removed also. But the principle remains the same; preserve the ovaries if possible. On the other hand, if the ovaries must be removed, nothing is gained by saving the uterus. A double oöphorectomy leaves the uterus a foreign and useless body, and therefore it should be removed.

A few words as to the technique of vaginal hysterectomy—which discussed here will avoid repetition—and then we will pass to a consideration of the pelvic pathology that can best be operated upon through the pelvic outlet, the vagina.

My operation is now extremely simple. Having passed through the use of the clamp, which though attended with success in my hands, was abandoned because of the suffering it entailed, and the long and dirty convalescence that

followed its use. My next operation was to tie the uterine arteries, tear the uterus out of the broad ligaments, apply ligatures to the free border of the broad ligaments, including the ovarian arteries, and after cutting away the uterus, tie the pedicles together and pack with gauze. In this operation no sewing was done, and the broad ligament pedicles, when brought together, formed a bridge for the support of the bladder. The operation was rapid—ten minutes being the usual time consumed—and the convalescence good. But without any change in technique, I lost two cases. One from secondary hemorrhage, the other from suppuration, which had its origin in the sloughing pedicle. It so chanced that my next operation was an abdominal hysterectomy for a large myoma, and it occurred to me that I would dispose of the broad ligaments, and preserve the continuity of the peritoneum by bringing them together, as in the vaginal operation. In making the attempt, which was quickly abandoned, I realized what I had not realized before, the degree of tension that this procedure placed upon the stumps—a surgical tension which certainly would not favor union. This experience made it clear to me that the recovery of the vaginal cases depended upon the gauze packing, which favored closing the pelvic cavity, and that an arterial danger lurked in the pedicles treated in this way. I have therefore given up this method of operating, and now bring the broad ligament stumps into the wound where they are secured together with the peritoneum, which I close with fine silk sutures.

I am not always careful to close the vagina over the peritoneum, and do not find that the omission changes the results one way or the other.

A word now about getting the uterus out of the broad ligament, that is, away from its lateral peritoneal covering or reflection.

I think any one of us will oppose an operative procedure that sacrifices safety to brilliancy, sound surgical principles

to sophistical reasoning. I refer to the recently revived, so-called enucleation of the uterus, without hemorrhage, and without securing any arteries. I claim this operation to be false in principle and misleading in results.

In the first place, the uterine arteries cannot be avoided without invading uterine tissue, neither can the ovarian arteries be avoided without cutting into the uterus. The uterus is well supplied with blood, and which for functional purposes the arteries anastomose freely over the uterine walls, large branches penetrate the uterus, and it is an anatomical fallacy to say that these arteries are unlike other arteries, and can be cut without bleeding. In other words, to make a bloodless vaginal hysterectomy, the arteries must be cut out of the uterus, thus leaving a shell of uterine tissue behind. In this way the cavity of the broad ligament is not opened at all, and the natural contractive powers of the uterus are relied upon to close the mouths of the vessels which remain in the uterine shell.

The fallacy of thus dealing with malignant diseases needs no comment. The only justification for operating on a cancerous uterus is that we remove as much of the contiguous structures as possible. By adopting a method which avowedly does not fail to do this, we are guilty of dishonesty to our patients, and, as specialists, to the profession at large, for following unscientific methods—methods which sacrifice the welfare of patients to operative brilliancy.

As to true enucleation, which, of course, means nothing less than removing the uterus without opening the abdominal cavity, anyone who has tried to strip the peritoneum from the uterine fundus will appreciate its difficulties, I may almost say, its impossibility. As I have said, the uterus can be cut out of its bed with very little hemorrhage, but after doing the operation, which, I regret to say, I have been guilty of, I have felt inclined to apologize to my patients, as well as to those who witnessed the operation, for such a piece of surgical trickery.

I trust you will pardon this digression, but I cannot avoid regarding this method of performing vaginal hysterectomy as based upon scientific lines, and as unsurgical procedure. As such, it was many years ago discarded by the medical profession. Let us hope that surgical science will not retrograde, but will once again and forever bury in oblivion this method of performing vaginal hysterectomy.

The advisability of removing through the vagina solid uterine tumors, of such size that they first must be broken up, is open to question. In the face of our present successes in abdominal hysterectomy, I reserve this operation of morcellation for special cases, such cases being those in which the tumor is developed in the uterine walls, the whole mass preserving more or less the shape of the uterus. I have always found the operation to be greatly facilitated by first slitting up the cervical canal laterally, and then dilating. After the interior of the uterus has been sufficiently removed, the operation becomes a simple hysterectomy. The hemorrhage is very slight, and is perfectly under control by making traction on the uterus.

Tumors of very considerable size, however, can be removed through the vagina without morcellation. Women who have borne children naturally present the most favorable conditions for this operation. Quite recently I delivered, through the vagina, a uterine myoma that weighed ten pounds. Of course I was obliged to cut the perineum, but this does not complicate the operation. The pelvic outlet yields and relaxes, and the tumor is delivered much as a fetal head. Such a sized tumor I would have formerly removed through the abdomen.

One of the most important extensions of vaginal surgery is in the direction of diseases of the ovaries and fallopian tubes, and pelvic suppuration. Single and double oöphorectomy, though I have already said I would include the uterus in the latter operation, are performed with ease, with less risk, and, of course, with less visible mutilation

than attend the abdominal operation. Through an opening behind the uterus the pelvis can be thoroughly explored, and through this same opening the diseased organ removed. Some operators report hernia following the vaginal vault. I have never met with such a case, and certainly look upon the risk of such a result as less after the vaginal than after the abdominal operation.

Large ovarian cysts, though we do not see many such now, are operable through the vagina. The principal difficulty lies in securing the pedicle, but if the vaginal opening is sufficiently large, the empty cyst can be drawn down and any desired ligature applied.

Intestinal adhesions may somewhat embarrass the operation, but if the rule is followed never to separate such adhesions without seeing them, the difficulties and risks are both reduced. The same rule should apply to adhesions in the omentum.

I have come to regard the separation of adhesions as bearing a very direct relation to the success of any abdominal operation, while with the skillful hands this is accomplished with apparently little difficulty. Only the skillful and practiced fingers are capable of dealing with complicated cases. I make it a practice *never* to deal with intestinal adhesions without seeing them. Not because the separation cannot be safely accomplished, but because the wounded intestine must be protected before it is returned to the abdominal cavity. In addition to the usual methods of dealing with such cases, I have obtained most excellent results, when the gut has been denuded of a large piece of peritoneum, by stitching the peritoneum together with fine silk, the line of union being transverse to the length of the canal. The muscular coat is thrown in a ridge within the intestine. This may act as a valve, or finally wholly disappear. It has never given rise to any inconvenience that I am aware of.

Pus tubes, and pelvic suppuration generally, are safely

washed through the vagina. I believe, however, that in this class of disease a clear line marks the boundary between the vaginal and the abdominal operations. Some of the most formidable cases of pelvic suppuration I have ever operated on I have attacked through the vagina, but the most successful of those have been without opening the abdominal cavity; in other words, when the operation resolved itself into drainage of the pus cavity. In pelvic suppuration our zeal to perform a radical operation may lead us to an unnecessary mutilation, that is, to the removal of the pus sac. In the majority of cases, this is only not called for, but is not in the line of good surgery. We must remember that those pus pockets are extra-peritoneal, that the tendency of any cavity, made such by the pathological accumulation of fluid, is to contract when free exit to that fluid is given and maintained. We must further remember that the danger in all abdominal surgery lies chiefly in opening the peritoneal cavity, and in peritoneal infection. Hence I look upon the vagina as the point of election for operating on suppuration within the pelvis, principally because it offers a channel through which perfect drainage can be accomplished without opening the peritoneal cavity.

Thus it follows that I exclude from vaginal surgery cases of pelvic suppuration that require removal of the pus sac, unless this is formed by a reasonably small, non-adherent ovary or tube. My now large experience in treating pelvic suppuration leads me to believe that large pus sacs that must, as such, be removed, are best dealt with through an abdominal opening, supplemented, if necessary, by vaginal drainage. Adhesions in such cases are usually numerous and dense, and in the Trendelenburg position an open field is afforded for manipulation.

But, as I have said, the majority of cases of extensive pelvic suppuration are extraperitoneal, and lie within the range of vaginal drainage. The fact that they are extra-

peritoneal should furnish the keynote for our line of treatment. Nature has furnished this means of protection: let us be wise and follow in Nature's footsteps.

PUERPERAL DIETETICS.

BY

GEORGE B. PECK, M. D.

ONE year ago, at Denver, I presented a preliminary report on this subject. The reasons which prompted the investigation and the difficulties that encompassed it were then stated. It now remains but to give the total footings of my entire returns, a number two and a half times as large as that upon which my former paper was based. The figures which, as before, are percentages, are accurate to within half *per centum*, but in addition thereto I have mentioned the specifications of single practitioners as shedding additional light on the more generalized statements and as furnishing valuable suggestions in unique cases.

Refreshments are administered at the close of normal labor, when desired, by 27 per cent. of our practitioners, immediately by 22 per cent., when comfortable by 6, in one hour by 5, in thirty minutes by 4, and in two hours by 2, in twenty minutes by 1, and by individuals in fifteen minutes and five hours respectively. Milk is selected by 37 per cent., tea by 28 per cent, cold water by 21, gruels by 12, beef tea by 8, coffee by 6, light broths by 5, milk and water by 3, whisky with egg or milk or water, malted milk, chocolate, cocoa, hot water, stimulants, and "everything," each by 2, wine hot sling and Bovinine, each by one, while individuals order toast water, beef peptonoids, Mellin's Food, grape juice, koumiss, brandy, panada, nourishing

drink, lemonade, eggnog, Imperial Granum, and buttermilk. Two per cent. forbid the use of stimulants. Observe the diversity of opinions concerning the nature of "refreshments," especially when distinguished from food.

Food is permitted a normal puerpera, when desired, by 30 per cent., in two hours by 9 per cent., when rested by 8, in hour by 7, in three hours by 4, in six and twelve hours by 3 each, in twenty-four hours by 2, in four hours, five hours, and a half hour each by 1, while individuals specify respectively an hour and a half, after sleep, and "as soon as I leave the house." As to its nature, 35 per cent. indicate gruel and as many toast, 28 per cent. specify milk and an equal number tea, 12 order broths, 10 crackers, 8 bread, and 5 beef tea. Coffee, oatmeal, ordinary diet, liquid food, and soft eggs are granted each by 4; farinaceous diet, steak, light diet, soups, cocoa, grains and malted milk each by 2; chicken soup, cooked fruit, mush, cracker panada, baked potatoes, plain diet, porridge, rice, poached eggs, dropped eggs on toast, and "anything," each by 1, while individuals order game, beef peptonoids, egg and milk, oysters, eggs, semi-solids, lamb chops, soaked rusk, milk punch, whisky and egg, wine, cracked wheat, codfish, fruit, mutton chop, ice cream, chocolate, farina, toast water, elixir of beef, soaked crackers, a light yet nourishing diet, and "anything but oysters, eggs, beefsteak, and cabbage." Two per cent. forbid eggs and as many shell fish, while individuals prohibit fish and fowl and meat respectively.

Food ordinarily supplied previous to the appearance of milk is reported by 30 per cent. of our practitioners to be toast, by 29 per cent. milk, by 22 gruel, by 18 tea, and by as many broth, by 12 bread and butter, and by an equal number liquid foods, by 11 oatmeal, and by as many eggs. Seven per cent. state the food must be farinaceous, the same number stipulate only that it shall be light and plain, while a third, equal set, specify crackers. Cereal mush, ordinary diet and cocoa are each ordered by 6; rice by 5;

coffee, meat, cooked fruit, baked potatoes, and a light and nourishing diet each by 4; beef steak by 3, malted milk, beefsteak juice, fruit, beef tea, vegetables, and cooked tree fruit each by 2; chicken soup, oranges, grapes, peptonized milk, rolled wheat, milk diet, stimulants, egg and milk, farinose, mutton, chicken, panade, and "anything," each by 1, while individuals mention oysters, game, bananas, coarse bread, stewed prunes, corn starch, fish, koumiss, gingersnaps, tapioca, sago, chocolate, vegetable diet, generous diet, soaked crackers, soaked rusk, toast water, elixir of beef, prune liquor, solid food, Murdock's Food, Bovinine, "tea, toast, and gruel," "liberal diet if spare, scanty if fleshy," and "anything but oysters, eggs, beefsteak, and cabbage." Two per cent. forbid fish and as many meat; 1 per cent. coffee, tea, eggs, oysters, and vegetables; individuals broths, fowl, oatmeal, and mushy food. One per cent. caution us to "avoid liquids."

As soon as lactation is established, 24 per cent. of our practitioners first place the woman on her ordinary diet, 21 per cent. find it necessary to make no change, 17 increase the amount and variety of the food, 10 give more solids, 8 allow potatoes, and an equal number first give meat, using the term broadly; 6, eggs and as many beefsteak; 5, broths; 3, vegetables, toasts, mutton chops; 2, bread and butter, fruits, and chicken; 1, rice, chocolate, soups, gruels, game, raw oysters, fish, beef juice, a more nourishing diet, and "anything." Individuals now permit coffee, puddings, cocoa, oatmeal, fruit jellies, essence of beef, cereals, malted milk, plain diet, tea, a little meat, farinaceous food, a liquid diet, stewed prunes, an oyster stew, and milk. Stimulants, eggs, oysters, acids, vegetables, and coffee are each forbidden by 1 per cent. of our doctors, while fish, spices, toast, tea, chicken, and sour fruits are tabooed only by individuals. One per cent. of the physicians recommend less liquids.

The mother sits up on the tenth day with the consent of

31 per cent. of our accoucheurs, on the fourteenth of 17 per cent., on the ninth of 14, on the seventh of 4, on the sixth, eighth, and twelfth each of 3, and on the fifth and twenty-first each of 1. Individuals specify sufficient strength, the cessation of the lochia, the desire of the patients to be their guides in this particular. No change of diet is deemed necessary by 40 per cent. of the doctors, but ordinary diet is first established now by 33 per cent., while an increase of food is granted by 12 per cent. Steak, potatoes, eggs, meat, and "nutritious and easily digested food" are permitted each by 1 per cent., although oysters and vegetables are forbidden by a like number. Individuals order extra meals, toast, vegetables, roast beef, chops, birds, broths, fruits, fish, and "regular meals on half diet and liquid food between." Corresponding objection is made to eggs, fish, and toast.

Refreshment is administered immediately after dystocia by 23 per cent. and when desired by 13 per cent. One per cent. delay until the patient is rested, while solitary practitioners wait respectively one half hour, an hour or two hours. Hot milk is chosen by 19 per cent, tea by 15 per cent., beef tea and milk each by 14 per cent.; gruel, water, and coffee each by 8; brandy by 7, and stimulants in general by as many; broths by 6, malted milk by 4, milk punch and wine each by 3; whisky, Bovinine, cocoa, hot whisky sling, beef extracts, "hot drinks," and "anything" each by 2; Murdock's Liquid Food, milk and egg, peptonoids, lemonade, beef juice, eggnog, and wine whey each by 1, while individuals mention barley water, chicken soup, Hoff's malt, apollinaris, koumiss, mutton essence, brandy and milk, Imperial Granum, Mellin's Food, toast, "malted milk and ammonia," "no whisky except after hemorrhage," and "stimulants after danger from secondary hemorrhage is passed." Two per cent. emphatically forbid stimulants.

After dystocia 20 per cent. of our doctors give food when desired, 7 per cent. when it can be retained, 6 when rested,

and as many in two hours, 3 in one hour, 2 in three hours, 3 in one hour, 2 in three hours and in twenty-four hours, 1 immediately, in half an hour, and in hour, while individuals report fifteen minutes, six hours, twelve hours, and next day. Toast is ordered by 15 per cent., milk by 14 per cent., gruels by 13, tea and liquid food each by 11, beef tea by 8, broths by 7, oatmeal by 4, "light and plain food," and crackers each by 3, farinaceous diet, bread, coffee, malted milk, Bovinine, and "anything" each by 2, cereals, cocoa, cracker soup, rice, panada, nourishing diet, poached eggs, dropped egg, soft-boiled egg, soups, milk punch, potatoes, ordinary diet, and "substantial but easily digested food" each by 1, while individuals administer farina, raw beef sandwiches, peptonized preparations, stimulants, elixir of beef, eggnog, porridge, egg and milk, milk diet, wine, whisky and egg, cooked fruit, mutton chops, steak and solid food. One per cent. forbid stimulants.

Dystocia produces no variation in the dietary of 27 per cent. of our practitioners, 6 per cent. give less solids, 3 easily digested concentrated food and as many stimulants, 2 beef tea and as many liquid diet. Increased nourishment, abstinence until rested, easily digested food, tea, more frequent feeding, stimulating diet, the rare use of stimulants, light diet, milk, no stimulants, gruel, koumiss, and beef juice are ordered each by 1 per cent., while individuals elect Horlick's Food, Ridge's Food, toast, hot milk and water, peaches, food and drinks warm, eggnog, malted milk, grape juice, peptonized milk, whisky, more animal food, less food, and a delay in giving solid food for twelve hours, and still other individuals *forbid* milk, beef, potatoes, peas, beans, oranges, eggs, lemonade, and strawberries.

Post-partum hemorrhage has no effect on the dietary of 13 per cent. of our accoucheurs, but 8 per cent. order the food and drinks to be given cold. As many administer milk without specifying its condition, but 5 more give the same, insisting, however, that it must be hot. An increase

of fluids, concentrated food and stimulants are each recommended by 6, beef tea and beef juice each by 4, Bovinine by 3, a liberal diet, increased diet, liquid diet, forced feeding, eggs, stimulating diet, and brandy each by 2, grape juice, digested food, Murdock's Food, albuminous food, malt, egg and milk, extra meals and little change each by 1, and "hot coffee and milk," hot salted milk, malted milk, hot rum punch, koumiss, rennet custard, oatmeal gruel with milk, more animal diet, light diet, cold milk, and coffee, tea, stimulants rarely, raw beef and whisky hypodermically by individuals. Other individuals forbid, respectively, fish, eggs, and "stimulating food or drink." One states he administers food immediately.

In phlegmasia alba dolens 12 per cent. order milk and 8 per cent. liquid food, 5 gruels, 4 nourishing diet, 3 ordinary diet and as many broths. Fruits, low diet, dry diet, beef tea, milk diet, light diet, and "no meats," are each recommended respectively by 2, while "less meats," fruit juices, "no milk," Murdock's Food, liberal diet, vegetables, simple diet, bland diet, farinaceous food, tea, Bovinine, vegetable diet, eggs, peptonoids, soup, "no stimulants," and "anything" finds favor each with 1. Individuals forbid fruit, starch, acid, beef, pork, eggs, and fat, but permit "less liquids," bran water, rice water, gum arabic water, crushed wheat, meat diet, cocoa, laxative diet, extract of beef, malted milk, toast, little water, stimulating diet, milk soup, albumen water, wine, bread, meat, panada, eggnog, malt, milk, milk porridge, crust coffee, fish, raw oysters, and oyster soup.

In puerperal mastitis 10 per cent. order liquid foods in general, while an equal number specify milk. Eight permit but little fluid and 7 only a light diet. Five give gruels, 4 order a bland diet and as many make no change. Three authorize only farinaceous foods but fewer diets, the avoidance of meat, ordinary diet, fruits, vegetables, liberal diet, nourishing diet, eggs, broths, and dry diet are directed each

by 2. Fruit juices, grape juice, crackers, beef tea, koumiss, tea, toast, soups, raw oysters, milk diet, vegetable diet, malted milk, panada, no liquid food, no stimulants, bread, cooked apples, no eggs, no meat, and a low diet are each advocated by 1. Individuals order potatoes, hot water, cocoa, fish, less food, crust coffee, milk porridge, liquid peptonoids, concentrated food, more meat, extract of beef, cold water, stewed fruit, rice, steak to chew, meat, water gruel, peptonoids, eggnog, plain diet, meat juices, and a light nourishing diet, but forbid cocoa, oysters, fish, milk, and any highly seasoned food.

In puerperal peritonitis 20 per cent. order a liquid diet, while 16 per cent. specify milk. Broths and gruels are each reported the choice of 6, beef tea of 4; bland diet, low diet, fever diet, light diet, milk diet, sustaining diet, malted milk, and farinaceous food each of 2; grape juice, oatmeal, white of eggs, liquid peptonoids, fruit juices, meat juices, vegetables, cocoa, tea, koumiss, Bovinine, Murdock's Food, milk and water, Imperial Granum, rice water, plain diet, eggs and water, each of 1, a like number forbidding milk and meat. Individuals urge chicken broth, fruit, stimulants, hot water, peptonized milk, vegetable soup, milk and eggs, less meats, no fat nor salt, no vegetable substance, no oysters, no stimulants, no eggs, no fish, no food unless desired, little milk, little fluid, stimulating diet, cracker soup, milk soup, arrowroot tea, corn starch, concentrated diet, mutton essence, peptonoids, eggnog, barley water, oyster soup, vegetable diet, buttermilk, ice cream, milk punch, raw oysters, fish, soups, extract of beef, panada, and "anything."

In puerperal cellulitis 16 per cent. alike state they prescribe liquid foods and milk, 6 orders gruels, 5 broths, 3 nourishing foods, and as many malted milk. A low diet, a bland diet, a fever diet, a milk diet, farinaceous food and beef tea are the choice each of 2; panada, soup, grape juice, Bovinine, water, cocoa, fruit juices, stimulants, oatmeal, toast, anything desired, white of eggs, tea, no milk, no meat

each of 1; little milk, hot water, hot milk, peptonized milk, crushed wheat, vegetable soup, Mellin's Food, little fluid, egg and milk, fish, no meat, no oysters, no fish, no egg, light diet, stimulating diet, extract of beef, mutton essence, peptonoids, eggnog, plain diet, meats, chocolate, oyster soup, eggs, vegetable diet, buttermilk, no stimulant, ice cream, liquid peptonoids, milk punch, raw oysters, no food unless desired, and whatever agrees, each of individuals.

In puerperal fever (generally so-called) 19 per cent. favor milk, and 18 per cent. favor liquid food in general. Gruels are allowed by 6, broths by 5, beef tea and a low diet each by 4, toast by 3, farinaceous food, a bland diet, soups, stimulants, tea, no meat, Bovinine, milk diet, fever diet, water and malted milk each by 2, fruit juices, white of eggs, good feeding, oatmeal, grape juice, meat juices, anything desired, Murdock's Food, panada, beef extracts, eggs, wine, whey, liquid peptonoids, milk punch, no eggs, no milk, no beef tea, no broths, sustaining diet, egg and milk, and a light but nourishing diet each by 1; crackers, peptonized milk, baked apples, little food, no hearty food, hot milk, hot water, crushed wheat, no oysters, no fish, a stimulating diet, a concentrated diet, cocoa, brandy, mutton essence, eggnog, plain diet, no cracker, beef, oyster soup, vegetable diet, buttermilk, no stimulants, ice cream, raw oysters, fish, less meat, toast water, koumiss, vegetables, fruits, and no food unless desired each of individuals.

In acute septicæmia milk and a liquid diet are alike ordered by 14 per cent., stimulants by 6, gruels by 5, broths by 4, concentrated foods and beef tea each by 3; a generous diet, Bovinine, milk diet, eggnog, milk punch, a nourishing diet, and malted milk each by 2; little food, light diet, white of eggs, crushed wheat, fruits, toast, no meat, soups, meat extracts, stimulating diet, fever diet, Murdock's Food, panada, buttermilk, brandy, beef peptonoids, egg and milk, and "anything" by 1; vegetables, no stimulants, sterilized milk, champagne, hot water, cereal and water,

mush, little fluid, strongest diet, whisky and milk, bland diet, plain diet, oyster soup, vegetable diet, ice cream, water, grape juice, fish, raw oysters, whisky sling, no food unless desired, no milk, no eggs, no fish, no oysters, no meat. and no beef tea each by individuals.

NERVOUS INSTABILITY A CAUSE OF PELVIC DISORDERS.

BY

FRANK C. RICHARDSON, M. D.

'Tis no sinister nor no awkward claim
Pick'd from the wormholes of long-vanished days,
Nor from the dust of old oblivion rak'd.

—HENRY V.

ON the contrary, it is only by means of the light of the knowledge of recent times and an appreciation of the wonderful vasomotor function that a paper from this standpoint is possible. The reverse proposition has been so long and so loudly proclaimed as to make it most familiar.

The reflex origin of nervous diseases is a fact which has been long recognized and much written about.

The chief novelty of the so-called "official philosophy," which has received more or less attention of late, lies not so much in the character as in the unrestricted extent of its pretensions. The germ of truth which it contains comes to us from earliest medical literature.

The mutual relationship of pelvic and nervous diseases in particular was a fact—like so many others in medicine—recognized long before it received a correct explanation. The ancients saw only uterus when regarding hysteria. Hippocrates described the hysterical paroxysm and its accompanying disorders under the name of "strangulation of the uterus." Nervous diseases generally, when in the

female, were supposed to originate in some way from the abnormal movements of the uterus. It was believed that this erratic organ could wander at will throughout the body, doing all manner of mischief. Hippocrates asserted that it was the origin of six hundred evils and innumerable calamities, and the present astounding industry displayed in its removal would seem to indicate that the tendency of the day is toward the Hippocratic way of thinking.

While no one, in the light of present knowledge, denies that the association of neuroses with disordered conditions of the female reproductive organs is frequent, the prevalent idea as to how such association comes about, or which is cause and which effect, is, I fear, but vague and ill-defined.

It requires but a glance at the anatomy of the utero-ovarian nerve supply to trace the intimate connection of these organs with the great nerve centers. The nerves of the uterus and ovaries arise from the celiac plexus through the intervention of the venal plexus, which, through its inferior ganglion, is distributed to the ovaries and spermatic or genital ganglia. These genital ganglia, four in number, receive two large branches from the great sympathetic, and give off a great number of nerves to the ovaries. Formed of the principal branches of these ganglia, with the addition of small branches from the four lumbar ganglia of the sympathetic, is the great uterine or lumbo-aortic plexus. This plexus divides on the promontory of the sacrum into hypogastric plexuses, which are joined by branches from the terminal ganglia of the sympathetic, and are distributed to the lateral borders of the cervix uteri. There is a large cervical ganglion on each side of the neck, from which arise the greater number of the uterine nerves, the rest coming directly from the hypogastric plexus. The cervico-uterine ganglia receive their afferent branches not only from the hypogastric plexus, but also from the second, third, and fourth sacral pairs.

It will thus be seen that the nerve supply is derived from

both the cerebro-spinal and ganglionic systems, and so intimate and intricate is their anastomosis that it seems impossible to distinguish the fibers of one from those of the other.

Remembering the origin of this network of nerve filaments and the physiology of these two great nervous systems, it is not difficult to appreciate the fact that any irritation of the pelvic organs may give rise to nervous phenomena in any part of the nervous tracts or their sympathies.

The appreciation of this possibility has been the foundation of a new gynecological era. To the eager gynecologist the "may" becomes "does," and, enthusiastic in this new and enlarged field of his labors, he has multiplied hysterectomies, ovariectomies, etc., until any form of nervous condition, from insanity to simple headache, has come to be regarded as sufficient reason for operation. Under the spell of this fascinating philosophy, it is but natural that the trend of thought should be all in one direction; so that, while we have unlimited discussion of the utero-ovarian origin of nervous disease, we have thus far heard little or nothing of the other no less important and hitherto neglected side of the picture, namely, the neurotic origin of diseases of the female pelvic organs.

The same intricate connection with the great nerve centers, which permits of neuroses reflex from the generative organs is also responsible for the influence of deranged nerve function in the production of morbid conditions of these organs. This influence may be exerted either directly by transmission of nerve irritation or indirectly by disturbed vasomotor function, thus interfering with nutrition. It is to this latter that I wish especially to call attention, for I believe vasomotor disturbance to be a factor in the production of pelvic diseases, the importance of which it is difficult to overestimate.

By a delicate adjustment of nervous impulses transmitted

through the vasomotor nerve fibers, the contractile elements of the blood-vessels are capable, by contraction or relaxation, of causing constriction or dilatation of the caliber of the vessel. Arteries in such a state of constriction as under ordinary circumstances is normal to arteries whose vasomotor fibers have not been divided, and which are otherwise in a normal condition, are said to possess tone.

Arterial tone, both general and local, is a powerful instrument for determining the flow of blood to the various organs and tissues of the body, and thus becomes a means of indirectly influencing their activity. We should accordingly expect to find that vasomotor nerves were connected with, and arterial tone regulated by, the central nervous system; and experiment proves this to be the case. Far more important, however, than the maintenance of a normal tone, is the power which the central nervous system possesses of varying the tone of this or that artery or branch of arteries; and the exercise of this power may be called forth in either direction, in the way of constriction or in the way of dilatation, by means of nervous impulses, either originating in the central nervous system itself or started by afferent impulses, passing up to the central nervous system from any part of the tract.

With these physiological facts in mind, we have only to remember the extreme vascularity of the female reproductive organs to be impressed with the especial liability of these organs to influence by vasomotor disturbances.

That the women of to-day, in all classes, are constantly exposed to such disturbances of nerve function is a lamentable fact, realized by no one so well as by the physician. The society girl endeavoring to accomplish the higher education and, at the same time, achieve social successes: night after night in the ballroom or theater, subjected to the most profound emotional excitement; day after day under the nervous tension of the classroom, totally unfitted

for the labor which her weary brain performs under protest.

The matron of the same class, straining by every known means to outdo her social rival.

The women of the middle walks of life, endeavoring to imitate the social dissipations of the "Four Hundred," subjected to the additional nervous strain entailed by lack of means.

And, lastly, "the other half" (and oh, the pity of it!), weighed down with hopeless poverty, surrounded by all that is unsanitary, toiling day and night to keep the wolf from the door, insufficiently clothed and fed, and too often exposed to repeated nervous shocks through the brutality of a drunken husband.

All of these are familiar pictures, which I think you will recognize as true to life.

Imagine this nervous tension—to speak of it mildly—continued month after month, year after year, and wonder that the poor abused victims of the *fin de siècle* swirl retain even a semblance of normal nerve function.

It is in this state of affairs that the gynecologist will find the origin of a considerable proportion of the difficulties he is called upon to treat, for, with the rest of the jaded nervous system, the vasomotor function has received its full share of injury. Together with other vascular tracts, the utero-ovarian blood supply is perverted; there is increased arterial tone, causing regional anæmia, amenorrhea, etc., or loss of tone, encouraging a copious flow of blood to these organs, thus giving opportunity for an increase in the total interchange between the blood and the tissue; hence, we have endometritis, metritis, hyperplasia, with increased weight of the organ and consequent displacement, with all its horrid brood of symptoms so familiar to the modern physician.

In the same manner may be brought about ovarian engorgement, stasis, and even inflammation with resultant ad-

hesions and the group of symptoms attendant thereupon; while a most reasonable explanation of the new growth may be found in abnormal nutrition due to this instability of vasomotor function.

In these cases, when brought about by the disturbance of nerve force referred to, removal of the local manifestation of disease by the knife, or otherwise, is by no means synonymous with the cure of the patient.

Every gynecologist who has taken the pains to follow the post-operative history of his cases must realize, if he does not admit the fact, that the majority of operations undertaken solely for the relief of neuroses fail in their purpose; and, let me add, what they perhaps do not realize, the impression received that the unsuccessful operation is the last resource, results too often in that fatal hopelessness which condemns these patients to lifelong invalidism.

Do not understand me as arguing against legitimate operative interference when tangible diseased conditions threaten life by pressure, disorganization, systemic infection, etc. My object is to remind you that in the treatment of gynecological cases there is something to be considered besides the coarse local lesion which is but the late effect of a long operative course; and my plea is distinctively against the illegitimate mutilations which have been so indiscriminately performed with the erroneous idea of removing reflex irritation.

I maintain that in no small proportion of cases the reflex irritation comes from nervous instability, and that these patients can never be restored to health until the primary cause is removed and a normal tone of the nervous system has been recovered.

These cases require, first of all, proper hygienic and dietetic regulation. The patients must be advised how to live and be induced to follow the advice, by being shown the dangers of their present pernicious methods. Where possible, they should be removed from the surroundings

and associations which have contributed to bring about their nerve failure. Hydro-therapy, massage, electricity, will assist the indicated medicinal treatment, and to complete the cure, a voyage, perhaps, to the Western Islands, which constitute our south of France. A few months' sojourn in the delightful climate of Fayal, which is our Madeira, free from domestic cares and the harassing requirements of omnipotent fashion, with a diet consisting largely of grapes, will do more for them than operation, postural treatment, or pessaries.

This hasty consideration of the neurotic origin of diseases of the female pelvic organs will serve to introduce a subject which merits your most careful and thorough discussion, and if the paper be instrumental in bringing this about, it will have accomplished its chief object.

EXPERIENCES WITH NEOPLASMS AS COMPLICATIONS OF PREGNANCY.

BY

J. M. LEE, M. D.

THE subject, fibro-myoma, as a complication of pregnancy, like everything else, has two sides, and the extremists in both directions, as usual, are wrong in their conclusions and practices. One wing of the profession would manage all cases without surgical measures and cure all of their patients. The other would perform myomectomy on small tumors of the fundus, with no better excuse than the existence of the growth, attended, perhaps, by moderate pain. As a result of this needless surgery, about thirty per cent. of the patients suffer premature delivery, and a quarter of them lose their lives. Now, what is the proper course to pursue?

Operative treatment should not often be resorted to in

small tumors of the fundus. Even when they are the size of an orange the pregnancy should go to term, when the patient may be delivered without complications. Again, they may cause irregular contractions, adherent placenta, and hemorrhage of a more or less serious character, which demand the best skill of the accoucheur, but not often that of the surgeon. When the growth in the fundus is the size of a child's head, or larger, the pressure symptoms may cause death, unless the patient is relieved by some form of hysterectomy, as in the case of the author, reported in full in the *North American Journal of Homeopathy* for October, 1894. The patient was received on a stretcher, and, without surgical aid, moribund. "The tumor was ten inches in its antero-posterior diameter and seven inches in its vertical diameter, and weighed, with the amniotic fluid, about 19½ pounds. The operation was exceedingly tedious on account of extensive intestinal, parietal, pelvic, and vesicle adhesions. The case was serious indeed, but she made a good recovery."

If the tumor is of the sub-mucous variety, it may not only cause dangerous bleeding either before, during, or after labor, but break down and carry the patient off from exhaustion, due to sloughing or some other form of septic disease, unless it is arrested by prompt treatment, possibly vaginal hysterectomy.

When fibro-myomata spring from the lower segment of the uterus, and develop between the vaginal mucosa and the peritoneum of the pelvic floor, the danger to both mother and child is much greater than where the growths are located in any other part of the organ. Even in this unfortunate site, especially if the tumor is above the internal os, labor is occasionally terminated without dangerous complications; for, as the uterus develops upward, the neoplasm recedes from the pelvic floor to such an extent as to allow labor to advance. Unfortunately, however, the rapid growth of fibro-myomata of the pelvic outlet during preg-

nancy usually forms an insurmountable barrier to delivery. In such cases vaginal myomectomy is performed on small tumors which develop downward anteriorly and posteriorly beneath the vaginal mucosa, and delivery effected without artificial aid. When this is not practicable, the child is removed by Cæsarian section, or, if the tumor is sufficiently above the internal os to enable one to secure a good pedicle, the Porro operation may be employed. But when the growth is large and develops from the cervix, below the reflexion of the peritoneum of the pelvic floor, one cannot relieve the patient by premature delivery. He must resort to Cæsarian section, if the child is viable, or total extirpation of the gravid uterus at any time when the condition is discovered, or possibly at full term.

CASE I. is that of a pregnant fibro-myomatous uterus. The patient was forty; had been married twenty years, but conception had not taken place until six months previous to her admission to the hospital. She had suffered from pressure symptoms all her married life, and during the last two years the tumor had grown more rapidly than usual. The pelvic floor was pushed downward posteriorly, and uterus forward and upward. The bladder and rectum were both encroached upon, and there was frequent urination and constipation. Besides this, there was marked pain, which forced the patient to seek surgical aid. It was apparent that she could not endure the suffering until the child was viable, so it could be removed by Cæsarian section, and vaginal myomectomy and the Porro operation were out of the question. On account of the size of the tumor, 3 by $3\frac{1}{2}$ inches in diameter, and its inaccessible location, the best chance for success was offered by abdomino-vaginal hysterectomy. The vulva was shaven, the vagina thoroughly douched with an antiseptic solution night and morning for a day or two; then the abdomen, external genitalia, and thighs scrubbed, a bichloride dressing applied the night before the operation, and a laxative

given. When the patient was placed upon the table and under the effects of the anæsthetic, the vagina was again douched with a bichloride solution, washed out with the fingers, and the cervix packed with gauze; then the abdomen, external genitalia, and thighs quickly rescrubbed, rinsed with sterile water, and bathed with bichloride. The parts were painted over with a ten per cent. solution of iodoform and ether, moistened bichloride towels spread about the site of the proposed wound, and she was ready for the operation.

The only remarkable feature was that in the separation of the tumor from below as far as possible, the uterine artery was isolated for a considerable distance, then torn across. The hemorrhage was very profuse, and, as the vessel could not be secured, the case was finally successfully managed in the following manner: Strong traction was made on the volsella forceps locked in the cervix, so as to force the uterus downward and check the hemorrhage by pressure. Then, while the assistant forcibly held the tumor downward, the patient was quickly placed in the Trendelenburg position and the operation completed from above. She promptly recovered without alarming symptoms or complications.

Again, the pressure symptoms from the development of fibro-miomata from the lower anterior segment of the retroflexed and pregnant uterus may demand operation, as in

CASE II. Mrs. C., six years a widow, was sent to me for hysterectomy by a prominent old-school physician of Rochester. She had a poor appetite, had lost flesh, and was disabled from severe pelvic pain. She gave no history of suppression of the menses, or symptoms which indicated that she might be pregnant, and this condition was not suspected.

The tumor sprang from under the bladder, and crowded the inverted fundus down much lower than the cervix. This cramped position of the rapidly developing pregnant

uterus gave rise to severe pain, and compelled her to seek surgical aid. She was admitted to the Rochester City Hospital December 1, 1894, and extirpation of the uterus, with the tubes and ovaries effected by the abdominal method.

An assistant placed two fingers in the vagina to indicate where that canal could be safely opened into from above. While he manipulated the cervix to assist me in the dissection, a profuse discharge of watery fluid was noticed, the source of which we could not then determine. When the operation was finished it was found that the uterus was pregnant; that the corkscrew introduced into the fundus during the operation had ruptured the membranes and discharged the waters. The patient suffered from eczema universale, and the cutaneous function was arrested. Most of the work of the skin, therefore, was thrown on the bowels, which were torpid and partially disabled from the abdominal operation. This rendered her recovery doubtful for a time, but finally her convalescence was assured, and she was discharged from the hospital the fourth week in good condition.

Although the fibro-myomata are the most common cause of obstruction of the pelvic outlet, small ovarian tumors, with long pedicles, sometimes are wedged behind the uterus, and so effectually block the passage as to completely arrest the head.

A case of this kind came to my notice three years ago the present summer. My friend, Dr. W. T. Laird of Watertown, N. Y., was in Rochester at the time, and witnessed the surgical treatment throughout. The unfortunate woman was under the care of a midwife, who, for twenty-four hours, administered ergot to produce uterine contractions, which were sufficiently strong to cause rupture of the womb and the child to pass into the abdomen by the side of the tumor. After this dangerous complication the pains were arrested and a physician called, who mistook the tumor for the child's head, and attempted

to apply forceps to it several times. Strange to say that when Dr. Laird and I arrived, twelve hours after the accident, the woman was not collapsed, though she was quite weak and pale, with a pulse of 110. Considerable blood was discharged after the rupture occurred, though the hemorrhage was not profuse at any time. The finger, when introduced, came in contact with the dilated os and the tumor just above it. It was quite a puzzle to tell what the true condition was; indeed, it could not be determined at once. After a time the intestines were made out, then the child's head, free in the cavity of the abdomen, by the side of the tumor. The patient was at once taken to the Rochester Homeopathic Hospital and the Porro operation immediately performed. As she was weak from the gradual loss of blood previous to the operation, she succumbed fourteen hours afterward.

Dr. Laird, as well as the rest of us, believed that she was reacting from the shock, and that her chances were better than at any time since the operation, when her friends thought it necessary to summon a clergyman, who spent two hours with her, and when the doctors were readmitted to the room she was in a hopeless collapse. Of course, Mr. Chairman, the clergyman killed the patient.

DISEASES OF WOMEN CURED WITHOUT THE KNIFE.

BY

SARAH J. MILLSOP, M. D.

COMMENTING on the sections of Gynecology and Obstetrics, of the last Institute, many said: "The gynecological bureau is simply a surgical bureau. There's nothing going on of especial interest to general practitioners. Indeed," one said, with a most discouraged air, "it would

seem as if there is nothing to be done for the relief of suffering women but some sort of an operation."

Before beginning on the non-surgical subject assigned me, I want to say to the younger members of the profession, and to those whose professional lot has been more fortunately cast than my own, that they cannot feel the pride that I feel in the successful work done by the surgeons of our school. Going, as I did, into a region where there are but few homeopathic physicians, and into a part of the State where I am virtually the only one, I have not had an easy time, to put it mildly.

When I had proved that there was something in homeopathy, and when every other argument had been used to my injury, then it was that some medical Rip Van Winkle would wake up and repeat that time-worn legend, "Well, there are no surgeons in the homeopathic school." My patients, who had battled for me manfully up to this point, were often routed by this last feeble shot and forced to inglorious surrender, not then knowing of the large number of surgeons in our ranks, nor of their brilliant achievements. For this reason, if no other, in the various medical societies I have attended, I have always been in favor of giving to the surgeons all the time they require to compare notes and to discuss new methods. Then, too, it is important for general practitioners to hear these discussions, that they may the better understand why operations are made, and that they may the more readily diagnose, in their incipiency, cases that require the surgeon's knife. But to these same younger members of the profession and to the general practitioners I want to say, in all earnestness, that you must not allow yourselves to feel discouraged by the appalling records given by these brilliant surgeons. It is their business to operate, they are constantly on the lookout for surgical cases, and such cases are continually being sent to them.

Yet, while we admit the scope of legitimate surgery and are thankful for it, we know for a certainty that much can be

done, not only for the relief, but for the cure of suffering women without resort to the surgeon's knife. There is no condition in life without its ameliorations, and to what at first seemed a great disadvantage in point of location is largely due the fact that I am able to prove what I assert. Then, too, being the only woman physician in my part of the State, has given me the advantage of a large practice in gynecology. Women have come to me for treatment, not only from distant parts of my own State, but I have had patients from nearly every State in the South. Some, on finding themselves in the vicinity of a "woman doctor," improved the opportunity to have a needed examination and treatment.

Many have told me, some of them mothers of large families, that they would have gone down to their graves unrelieved rather than have consulted a male physician.

Of the hundreds of cases recorded in my notebooks, most of whom have been cured and nearly all relieved, surgical measures were required in but few instances.

What are my methods? may be asked. I can only answer that I use any and every common-sense measure that suggests itself for the relief of the individual case. I may as well confess to one hobby, but it is such an excellent one that I'm sure no sensible doctor can object to it. This hobby is hygienic dress. The one thing on which I invariably insist, before promising a cure of any malposition of the uterus, is that the patient shall leave off the corset, and that all the clothing shall be suspended from the shoulder by some means, so that, when the arms are raised, the clothing is also raised, instead of sagging down. This reform is not always easy of accomplishment, as most women are as firmly wedded to their corset as the corset is firmly wedded to them. But when I explain to suffering women the utter futility of attempting to keep in place a dislocated uterus, which is constantly crowded down and out of place by the shape of the corset and the

weight of clothing which presses on the viscera above, they are only too glad to exchange the stiff corset for one of the health-waists I recommend.

These common-sense waists, whatever their name or make, are suspended from the shoulders, buttoned in front, and have graded rows of buttons arranged for the attachment of skirts and all underclothing, when the union suits are not worn.

The second measure on which I depend for making cures is that of posture. I treat all retro-displacements with patients in the knee-chest position. I insist that this position shall be assumed two or three times daily and always at bedtime, the patient lying during the night as nearly as possible in the prone position. The anterior displacements I treat with patient in the modified Trendelenburg position. I place a large, firm pillow under the hips, allowing no pillow under the head. By the bimanual method, while the patient is exhaling after a forced inspiration, I replace the uterus. I direct that this position shall be taken at different times of the day, and always at night. Where the anterior dislocation is extreme, the force of gravity can be brought still more to aid in its restoration by placing the lower limbs of the patient over the back of a chair, which is turned over so as to form an inclined plane.

Where there exists subinvolution, or hypertrophy of the uterus from any cause, my third cardinal rule is to produce depletion by the best-known and speediest methods, as a uterus of normal size will stay in place far more readily than one of double or treble its normal weight. As a depleter, glycerin is an old and reliable standby. I have also had good results from elaterium in the form of a cerate packed round the cervix. Where erosions coexist with enlargement of cervix or body, I apply within and around the os, with powder blower, a preparation composed of equal parts of pulverized sanguinaria, myrrh, and

gum arabic. This has a most excellent effect on catarrhal conditions of any mucous surface. But what has given me better results as a depleter than anything else, is ichthyol to two parts of glycerin. This I have also found of benefit to break up old adhesions and to heal erosions.

Where endocervicitis or endometritis exist, I place a small pledget of cotton as far within the surface as the applicator will carry it. This cotton is also dipped in the preparation of ichthyol and glycerin, and has a string attached for its removal. I may add that, after depositing a retrodisplaced uterus, I place in the posterior *cul-de-sac* an oblong tampon, fitted to each case as accurately as if it were a pessary. I make the tampon of antiseptic wool or lamb's wool prepared for the purpose. I always cover the wool with a layer of either borated or simple absorbent cotton, and on this I place whatever medicament seems indicated, thus making the tampon serve the threefold purpose of support to the uterus and prolapsed ovaries, and as a depleter. In the case of virgins I tie a second loop of string near the end of the tampon, that it may be drawn out lengthwise.

For support of uterus in anterior displacement, instead of placing a tampon in anterior *cul-de-sac*, as was formerly my custom, I place it behind and against the cervix, so that, when the patient is in the upright position, the cervix will rest against the pledget of cotton. I direct that a copious vaginal douche shall be taken after removal of the tampon.

If much irritation of the mucous membrane exists, it is a good plan to have hydrastis added to the water. This can be done at little expense by using the pulverized yellow root. I have found that women have done themselves an injury by using the vaginal enema too frequently and in too small quantity. Some have told me that their habit had been to inject from a pint to a quart of warm water three times a day, thus keeping the pelvic tissues

engorged with blood, instead of using a sufficiently large quantity of water to get its secondary effect.

The fourth means of cure is the well-selected remedy. We all know the power of nux and sepia as "lifters up," but no remedy has given me more satisfaction in retrodisplacement than has ferrum iod., as recommended by Dr. Richard Hughes. With these four trump cards, judiciously played, I never yet have seen the necessity of calling to my aid any of the "half-dozen surgical operations for correcting retrodisplacements of the uterus." Indeed, the able and enthusiastic surgeon who gave us, last year, such an interesting essay on the technic of these operations, candidly admitted that of the four most approved operations for the cure of this malposition, no one of them had proved uniformly successful.

He adds that failure occurs too frequently in the hands of even the most expert operators. He also admits that all of these operations are attended with more or less danger. Then why resort to any of them, when a better and simpler way is known?

The one operation I would recommend as a help to the cure of any of these malpositions, is the repair of a badly lacerated perineum, as the lack of integrity in this structure causes a weakening in the floor of the pelvis, and a consequent lack of support to the pelvic organs. But even this defect need not prove so serious a complication in pelvic disorders if all pressure from above be removed. A lady physician, in whose judgment I have unbounded confidence, writes me that in a long and successful experience in treating the diseases of women, she never has placed a pessary, but has removed many. This doctor has been fortunate in having a sanatorium, where she has had her patients under daily supervision, and where rest is the rule, rather than the exception.

In the general practice that most of us have, including a class of women who must attend to their regular duties,

whether menstruating or not, it is a good plan in retro-displacements to insert a pessary a day or two before the period, to be worn during the flow and for a few days afterward.

I advocate the use of a pessary as I would any other crutch or support for a time of need, not with the hope of affecting a cure.

After I discharge patients from regular treatment, I advise that the pessary shall be thus placed monthly until the bodily nutrition can be improved by remedies and healthful food, the pelvic tissues toned up, and the backward inclined uterus has gotten into the habit of staying at home.

Had I remained in a large Eastern or Western city, I should, no doubt, have gone on "cutting and sewing" in the same dutiful and enthusiastic manner in which I was taught. No other or simpler methods of curing difficult cases would have occurred to me, but going into a section of country where skilled surgical aid was both expensive and difficult to obtain, and where the slightest failure in surgical work of my own attempting would have proved disastrous to myself, my sex, and my "pathy," I learned to do without it except in cases of real need.

When I went to my present field of labor, I found that about the only female disease for which women were treated was "ulceration." This treatment was given by the old heroic method of cauterizing, now abandoned by the more enlightened physicians.

The poor victims of this barbarous treatment remained in bed for a few days, then, after keeping about for a stated interval, the process was repeated. So it would go on for years; neither doctor nor patient understanding why there was no improvement in health.

I have not found that an erosion of the cervix, of itself, causes disturbance of health: neither have I found a simple laceration to be the potent factor in causing the reflex and

nervous disorders that have been represented. To be sure, at the climacteric these cases require more careful watching, but at that period of their lives women should receive especial care anyway.

My observation shows that women suffer more from malpositions of the uterus, especially if attended with inflammation or hypertrophy, prolapsed, inflamed, or enlarged ovaries, and disorders of the rectum, than from all other causes combined.

I never consider an examination completed until I have explored the rectum. This I was instructed to do by a careful diagnostician before the era of "pockets and papillæ" had dawned upon the medical horizon.

Frequently, when women have undergone prolonged treatment for uterine ailments, I have found the cause of their suffering to be from hemorrhoids, or a rectal membrane denuded of its epithelium. Proctitis is a frequent accompaniment of an inflamed and dislocated uterus. For the relief of the acute suffering caused by rectal disorders, in addition to well acting remedies, I have used with benefit cerates or suppositories made for hamamelis, hydrastis, calendula, or æsculus. To describe successful remedial measures used by many physicians for reducing fibrous tumors, and also for the relief and cure of those two most painful disorders, dysmenorrhea and urethritis, would each require a chapter in itself.

Women can never repay the debt of gratitude they owe to homeopathic remedies, for the relief they have afforded in ovarian lesions. I need not emunerate remedies so well known to us all, but I must say a good word for zincum, met. and valerinate of zinc, in return for the boon they have been to me in relieving ovarian congestion and neuralgic irritation.

To relieve congestion and inflammation of the ovaries, no better adjuvant can be recommended than the warm sitz bath. A small pledget of cotton, dipped in hamamelis and

placed in the vagina by the side of a tender or enlarged ovary, will prove soothing and beneficial.

If women could have careful, conscientious treatment for sick ovaries, there would be found less excuse for their removal; and the "records" of successful laparotomies would be correspondingly diminished. All honor to grim old Ephraim McDowell for inventing a way in which to relieve suffering women of pelvic tumors, but I'm sure this honest old gentlemen would writhe in his coffin were he conscious of the many needless operations that have been made by some who have followed after him. We might paraphrase "Oh, Ephraim! what sins have been committed in the name of gynecology!"

I heard one of the brainiest physicians this country has produced say, not long since, that at one time in his life he had eulogized the name of Dr. McDowell with both tongue and pen, but now he almost regretted that the man had ever lived. He added that probably more lives had been needlessly sacrificed in the craze for operating, coupled with the desire for gain, than had been saved by legitimate operations.

Like the young lion tasting blood, the surgical appetite refuses to be satisfied with anything else; so it behooves the young surgeon, more than others, to keep a firm grip on his or her conscience.

It should always be kept in mind that the surgeon's knife, however skillfully used, cannot cut out the cause of disease, even though it remove the morbid product. The system should be carefully treated after, as well as before, an operation.

It is not a hopeful sign of the times that the best and most conservative women are, in many instances, subjected to needless operations. This I know not only from personal observations, but from the well-authenticated reports of others who are in positions to know what they are talking about.

It is no light crime to unsex a woman and make her a nonentity, if she survives the operation. "Nature formed the female organism of woman for a wise purpose, not for a legitimate field for skillful mutilation," said a brave defender of our sex. I appeal to you, therefore, to search more diligently for other means of cure before deciding on an operation. Let us as conscientious physicians teach mothers that the health of future women depends largely on the way in which children of *both* sexes are reared. Much suffering can be traced to lack of prudence at the time of puberty and during and following menstrual periods.

I would that some of the time and energy now devoted to the improved technic for removing diseased tubes were given to teaching men that innocent girls and children yet unborn may be lifelong sufferers in consequence of their sins. By this course you might not be known to the world as such accomplished surgeons, but you would have the satisfaction of knowing you were that nobler person—"a good physician."

THE ELECTRICAL TREATMENT OF ENDO-METRITIS.

BY
WILLIAM L. JACKSON, M. D.

IN these days when surgery is paramount in the medical world, and when the first impulse in undertaking the treatment of a case is to consider it a favorable one for operation, I desire to enter an earnest plea for greater conservatism and more careful consideration of other means, less brilliant, perhaps, but equally as efficacious as the curette. I desire particularly to point out that in electricity we have an agent which, in many cases, will accomplish a

cure by less heroic means more safely, and with less suffering, than can be done by any other method.

Apostoli, the great teacher, was the one to first call attention to the advantage obtainable by the use of electricity, and since his first paper was presented, in 1886, many modifications of his plan of treatment have been suggested, all conducing to the more intelligent use of electricity, and greater accuracy in the selection of cases suited to this agent, thus producing better results.

Apostoli advocates the use of currents from 75 ma. to 250 ma. for from three to ten minutes, the positive pole in the uterus when there is hemorrhage, otherwise the negative.

The active pole placed in the uterus is either of platinum or carbon. The indifferent pole, a large dispersing electrode, is placed on the abdomen. The effect produced is a chemical galvano-cauterization of the tissues with which the active pole comes in contact. Following Apostoli's suggestions, various modifications have been advocated.

The method which I have followed with the most satisfaction is that of Gautier. My treatment is as follows:

The vagina is thoroughly irrigated with a solution of corrosive sublimate, 1-3000, or with creolin ten per cent. or lysol one and one-half per cent. A metallic sound of copper or zinc, as large as will pass through the cervix, is introduced to the fundus and held there steadily during the treatment. I prefer the sticks of copper made by Gaiffe to the copper tips made in this country, which are too short for many cases, and consequently cannot reach every part of the endometrium, as should be the case. If it is not desired to affect the cervix, a coating of shellac dissolved in alcohol will limit the action of the electrode to the portion remaining bare. The part of the sound that is in the vagina may be prevented from contact with the walls by a sheath of celluloid.

Most electro-therapeutists condemn the use of the specu-

lum in the introduction of the sound or of the electrode, but I fail to see the disadvantages claimed, and believe that I can apply the sound with greater nicety and less pain through the speculum than with the finger. It seems to me also that there is less danger of conveying germs to the endometrium through the sterilized speculum than with the finger alone in the vagina. I would suggest the use of a round celluloid speculum, which can be perfectly sterilized, and which will not inconvenience the patient by its weight during the treatment. Another point in its favor is that, as it is a non-conductor, there will be no straying of the current if the electrode rests upon it. After the douche the speculum is introduced, and, finally, before passing the sound, the os is again irrigated through the speculum. The electrode is sterilized by being passed through the flame of an alcohol lamp, or by being boiled in water, afterward being kept until used in an antiseptic solution. At the first treatment we may make use of a platinum sound in order to best test the susceptibility of the patient to the current, using either the positive or the negative pole, according to indications given later.

With the sound in position, the current is gradually let on by means of a current controller, and a maximum intensity of 25 ma. applied at the first treatment. This strength may later be increased to 60 ma., but this should rarely be exceeded. The duration of treatment is fifteen minutes, after which the current is gradually reduced to zero, reversed, and 15 to 20 ma. are allowed to pass for seven minutes. This is done to free the electrode from its adhesions to the endometrium. The electrode is carefully removed with a slight rotary motion, which facilitates its separation from the adhesions formed. Sometimes it is found to be very closely glued to the uterus, the condition being proportional to the strength of the current.

After the removal of the electrode and speculum another douche is administered and the patient made to lie down

for thirty minutes. Only two treatments should be undertaken during each intermenstrual period.

The choice of the pole is governed by the quantity of the flow. If menstruation is excessive, the positive pole is introduced into the uterus; if diminished in amount, the negative is indicated. When the negative is the active pole it is better to use a platinum electrode, when the reversal of the current will be unnecessary.

The indifferent or discharging electrode is either made of clay or of metal, covered with some conducting material like amidon. It is placed upon the abdomen, and, in order to secure firm contact with the skin, a small, flat sand bag is placed over the electrode.

During the treatment the patient rarely complains of pain, unless there is great sensitiveness of the uterus, when the passage of the sound may cause considerable discomfort, and, during the application, pains running down one or the other crural nerve. Should the uterus be intolerant of the presence of the electrode, the galvanic current may be preceded by the faradic.

There should be no sensation under the indifferent electrode, unless the current be very strong, but at the reversal of the current for a minute a burning prickling of the skin will be felt. If proper care be taken, there should be no blistering of the skin. There will be in most cases a bloody discharge from the uterus, which will last several days, and may even run into the next regular period. The patient should be forewarned of this, lest she be discouraged or unnecessarily alarmed by it.

In regard to the selection of cases best suited to this plan of treatment, I am ready to admit that patients afflicted with septic or gonorrheal endometritis would be more safely treated by active surgical measures; but the majority of cases of uncomplicated endometritis, I believe, can be cured as safely, surely, and satisfactorily by electricity as by any other means, and, in addition, we have the added advantages that this treatment does not require

anæsthesia or confinement in bed, there is no shock from operation, and the treatment is usually not attended by pain. Cases have been under my care which have resisted other methods, even curetting by some of our best operators, and have been cured by electricity. Sometimes even one treatment suffices, when other methods had been tried for some time without avail. A marked lessening of the pain is one of the first results, followed by a diminution of the uterine discharge and a lessening of the hemorrhage.

Another point where the electrical treatment is of value is in the assistance which it gives us in the diagnosis of inflammatory conditions of the ovaries and tubes. Apostoli has shown that invariably where there is an inflammatory reaction following the use of the current, there must be a collection of pus within the pelvic cavity.

Undoubtedly some physicians report cases of failure in the use of electricity, but there is some especial reason for this lack of success. I should not be willing to acknowledge that the means had failed unless I knew something of the skill of the man who employed the agent, for everything depends upon the technique. It is the enthusiast on any subject that gets the most brilliant results—not the man who half understands or half believes in a method. This is certainly not a form of treatment which a novice in electricity should attempt to apply.

The galvano-chemical cauterization, interstitial electrolysis, or metallic electrolysis, whatever name may be given to this process, produces a destruction of the diseased lining membrane of the uterus, similar to that produced by the application of chemical caustics, without the liability of cicatrization of the latter. It is followed by a healthy, new development of the endometrium. It does not prevent the uterus from resuming its customary functions after the treatment, and, as Apostoli has pointed out and I have verified in three cases, it causes no bar to pregnancy; in fact, in my cases, it was the means of rendering such a condition possible.

As to the fear of producing sepsis from introduction of germs into the uterus, this cannot be possible any more than with any other method, provided full antiseptic precautions, such as are advised by Apostoli, are carried out.

The method has the advantage not only of accomplishing what the curette and chemical applications do, but also, as we may infer from the results obtained, and from its known action in other similar applications, it exerts a local stimulating effect upon the trophic nerves, causing renewed activity of the cells, and, by improving the circulation, relieves the congestion and stasis so often present in these cases. Finally, I would suggest, as a result of our increased knowledge of methods of treating endometritis, that we should discriminate more carefully in our selection of cases for one or the other method, and as I do not advocate the use of electricity in all cases, so, too, may I claim that there are many who would be best treated by electricity. Let the electro-therapeutist turn over to the surgeon especially those septic cases which I have referred to, and let the surgeon reciprocate by staying his hand in cases of simple endometritis, where the patient can be saved the disadvantages of an operation, and be cured safely and surely by milder measures.

AVOIDABLE CAUSES OF DISEASE IN CHILDREN.

BY

BENJ. F. BAILEY, M. D.

THE day of babyhood has scarcely dawned ere our intuitive eye can oftentimes see the mark of scrofula, tuberculosis, rachitis, or even, perchance, syphilis. Now, how strong are we? How able are we to cope with these destroyers of the human race? Statistics tell us that

nearly one-half of the children born into the world die before they are ten years old. Can we not do better than this? Can we not conquer some of these ills, so that the world shall not have so many broken circles, so many blasted hopes? The Creator never set his beautiful babes in the garden of babyland to be bruised, crushed, and killed before the allotted time of man. That God's garden is so often God's acre is largely our fault.

"Come, let us reason together," and, perchance, we may help each other, and, through each other, the world. Scrofula is a term so old that theories regarding it have been as numerous and ingenious as the writers who have discussed it since the palmy days of Rome. During our day the tendency has been to simpler theories, and to-day it seems to me that we had best consider scrofula as a name for a certain peculiar diathetic condition, marked by a lack of proper nutrition. We not infrequently find these children rotund in appearance, and occasionally with a faintly colored cheek; but the appearance of strength is pseudo in character, and, like the mushroom, has little resistance when trial comes. There is a reason for this, in that we find the heart smaller and the vessels as large, or larger, than usual; hence the same torpid circulation, or circulation at low pressure or tension, that we find in the adult as a precursor of the fatty heart, and tending to a deposit of adipose matter throughout the body. Now, as in adults so in children, wherever we find this condition, we find a weakened power of assimilation of the inorganic salts. Ordinarily, it is not that these children do not take food enough, but that they do not assimilate those elements of the food that they most need. Now, in the formative stage of childhood the bones and tissues naturally have less inorganic material in their composition, but they have a growing demand with each month. The blood of childhood has more formative cells and less fibrin and hemoglobin. Now, if these faults, which, though but

a slight deviation from the normal in childhood, yet cause so much trouble as we find in the strumous child, how much more injury will obtain, and how much more they will deviate from the normal as we advance toward the adult life!

In the adult we normally have more inorganic material and greater exposure to the vicissitudes of life; hence greater injury. And yet, from the tendency to more permanent cells and structures, the condition is more difficult to radically correct. Ergo, it is wise for us to bend the sapling the way we would have the tree grow. How may we do this? In some cases the food and habits may be changed; in others the digestion must be corrected, and in still others we must both change the food and improve the digestion.

Generally speaking, if the child inherits its diathesis from the father, the mother's milk will do, if we aid the digestion and assimilation; whereas, if the inheritance is from the mother's side, very probably the child will do better if placed on an artificial food. In this statement I may invite argument; but permit me to say that this has not been guesswork with me, as I have had the milk from many mothers analyzed, and when found lacking, and I have changed to some other food, I have never had cause to regret it. The question arises, if we use artificial food, what shall it be? In winter, sterilized herds-cows' milk (not from Jersey cows) I usually find the best. In the summer this often fails me, unless the sterilized milk is taken from the morning's milking, owing to the overheating and greater acidity of milk secreted during the day. Should the sterilized milk fail *in toto*, I carefully examine my child and note the constitutional peculiarities, and adapt the food as nearly as possible to it. For instance, I sometimes correct the wrong by correcting the constipation of the child, using oatmeal water in the sterilizing instead of plain water; or, in looseness of bowels,

barley water; or, in cases of great acidity, which is sometimes persistent, a little of one of the malted foods added will correct the trouble. It has seemed to me that in milk from the strumous mother the child failed to assimilate lime salts, partially on account of the actual lack of the salts in the milk and partially from inability to assimilate. On changing to say sterilized milk, it has seemed to me, and I think I have seen it sufficiently well proven, that the habit of non-assimilation has so obtained a foothold that it must be corrected by medication, even in the midst of affluence. Hence, I would make the statement that every child will be better if placed upon two or three doses a day of his properly indicated constitutional remedy. To this add cleanliness, and, whenever possible, good outdoor country air.

This subject is so vast that it is impossible to cover it, so I may be pardoned if I touch briefly on several points rather than to attempt to exhaustively to treat any. I believe investigation will bear me out in the statement that there are two distinct tubercular diatheses. The one is simply the common strumous patient; the other is the patient who is of lighter build and fairer face, precocious in childhood, brainy in older years, bright, sharp, lovable. These patients assimilate the inorganic salts, but disassimilation is too rapid; hence, there is a continual *Oliver Twist* cry of the system for "more." These are the tubercular patients in whom we usually find *phthisis floridæ*—that rapid disease. This because they have the habit of rapid disintegration and, at the same time,—and please note this,—at the same time lack the reserve force which a plentiful supply of adipose tissue gives to the other class.

In this latter class, restraint in exercise should take the place of enforced exercise in the other—phosphorus or silicea will take the place of calcarea carb. or sulphur. Means to modify the arterial tension will substitute means to increase vascular tension. In both of these classes, if it

be within the range of possibility, these children should be reared in a clear, dry climate. It may be safely stated that thousands of children are safely reared in our Western climate that would die in New England. I make this statement after five years' practice in New England and nine in the West.

By the tubercular diathesis, of course we understand that organism in which the tubercular bacillus is more wont, not only to locate, but to develop. It is here in childhood, too, that our remedy "bacillinum" is most worthy of trial. Here, when the tubercular bacillus has just begun its work, but not yet induced that pocket of dead product which can never be removed, but which is as deadly in its septicæmic effects as the bacillus itself. It has saved lives for me—it may do the same for many.

Rachitis is but another form of struma. Here we have a normal heart, but arteries larger; hence, a lessened blood pressure and minimum nutrition. In this disease the lack of inorganic salts is carried to such an excess that deformity of the bones results, after which the damage cannot be undone. But, if we recognize this character of circulation early, and modify the usual medication of our school with proper food and occasional doses of strychnine 3x to 6x, we will save a child from deformity. If we correct the constitutional and chronic errors of nutrition in childhood, we will have a much smaller per cent., and a much more readily yielding class of acute diseases to treat.

I am loath to close this paper without brief mention of some of our acute diseases which, to my mind, seem avoidable. The bacteriological study of diphtheria has made it possible, I believe, to entirely eradicate this disease if we persistently and conscientiously carry out bacteriological diagnosis and quarantine. The disease is propagated largely by exposure to children who, though apparently convalescent, yet still carry in their throats the Klebs-Loeffler bacillus. I have watched this closely and as long as twenty-

one days after apparently perfect recovery. Dr. Peters, of our Experiment Station, has found in my cultures the bacillus. By continuing quarantine until the bacillus was entirely eradicated, a little sister was prevented from contracting this disease. Would that I might have known this years ago, for I believe we have all lost little ones who might have escaped the disease and still be living to bless with their happy presence.

I may be pardoned if I say that I believe the new study of "immunity" will result in a perfect prophylactic for children already exposed. It is but the theory of stimulating in the organism the production of an antidote to poisons to the human race by giving small doses of a poison which will produce a similar condition to that of the disease. Briefly, I believe that in the theory of immunity we have an explanation of the law of Hahnemann, and before another year has rolled around, I hope by experiment to give to you an unquestionable proof of this.

In scarlatina we have our belladonna, which for many years has given to us either immunity or a modified disease.

In children prone to suffer from bronchitis, let me commend a light jacket of raw cotton over the chest next to the skin. It will save many a child from danger.

In bowel troubles, let us be sure and have the food right, and then, if in spite of our care, the affection persists and we have reason to believe it due to bacterial fermentation, minute doses of boracic acid, internally, or enemata of boracic acid in solution will put a stop to the disease and save a sudden attack of malignant bowel trouble. In children who are continually showing threatening symptoms of cholera infantum, we will frequently find that milk diet is to them poison, and we may save them from fatal illness by entirely giving up, for a time, the milk diet and relying upon Mellin's Food prepared with water. This may be indicated in cases where either the secretions of the stomach

are too acid or where it is either neutral, or mildly alkaline.

There are so many other truly avoidable diseases that I would mention, but I refrain lest I weary you.

As a *résumé*, first : Our best work can be done by so educating the people that in generations to come our children may be "well born."

Second, let us lose sight, so far as possible, of the terms scrofula, struma, tubercular diathesis, etc., and rather keep clearly in mind the study of *perverted nutrition*.

Third, let us remember that the world moves, and not be so markedly men and women of one idea that we cannot honestly and candidly give to new theories, as to that of immunity, a fair and impartial judgment. Instead of weakening our own similia, they may strengthen it.

Fourth, let us not, in our enthusiasm for medication, forget to free the prepuce or clitoris, loosen the tension of the sphincter, destroy a parasite, or do anything else that may tend to place our patient in a position to rally to the fullest extent under our remedies.

PREPARATION FOR LABOR.

BY

JANE K. CULVER, M. D.

NO department in medicine makes such demands upon the physician for self-sacrifice, for untiring devotion, as the obstetrical. The two lives involved, the liabilities, the complications, the unexpectedness, the impossibility of determining with accurate certainty just what is to be encountered, make up the serious picture. Unlike the surgeon whose services may be required two or three hours in a serious operation, allowing him to return to his office for rest, or visit another patient, the physician attendant

upon a case of labor may spend a night of anxious waiting and watching, combined with ceaseless efforts, and, with all his skill and cleverness, find in the morning the rigid os still unyielding and persistent, and the patient suffering. Foster defines a normal case of labor as one in which the head presents and the delivery is completed without artificial aid, and without injury to the parts, to the mother or child, or any complication, within the space of twenty-four hours. The anguish of the woman even in a normal case, in the majority of instances, makes large demands upon the sympathies and true kindness of heart, for in no case is there such a feeling of utter dependence upon the patience and loving care of the medical friend, as when in the agony of labor. Of old, we read, great sorrow was ever compared to a woman in travail.

The relation of the child-bearing class to the world is of transcendent importance. The subject of obstetrics is truly worthy of all the scientific study and thought which has been bestowed upon it, and in looking at its history we note great advance. Much has been accomplished; and yet with all the increased efforts for better methods of delivery, for closer attention to hygienic and sanitary conditions, comes the question, "Is all being done for the woman that could be done previous to labor?" Dr. Winterburn, in a paper given to the Institute in 1894, said, "If it could be always, that from the time of conception all through the pregnancy, the woman could be under the observation of a thoroughly competent physician, the various ills which she suffers at that time could be entirely removed and labor made in due time a purely physiological process. But before we reach the period when this can be the rule, the public must be educated to understand that the doctor's duties begin with pregnancy and the medical profession itself must be aroused to its true relation to child-bearing." He added: "This is missionary work which we should all endeavor to do, realizing

that it will be many decades before this ideal can be established." This sentiment must have met with a response from everyone. We know we have often proceeded under difficulties, when strangers to our lying-in patients. We know they might have been saved much suffering if we had been familiar with their past history, with the pathological conditions in which pregnancy found them. We believe if we had the pregnant under our care during the long, tedious months of pregnancy, we could at least so prepare the woman (in cases of primiparæ, for instance) for the hours of labor, as to bring her to the event in a much less nervous condition and perhaps with less apprehension and dread. Unfortunately, the great army of mothers presents all classes and conditions. They are not elected and set apart from others to perform the holy office of matrimony on account of their special fitness for the same. They are not chosen, as is the case with some of our domestic animals, because of their antecedents, from a race noted for well-developed and strong constitutions, and not because their ancestors were giants in physique. Unfortunately, those most nearly related to the increase in population are quite often indifferent to the subject of health, and give to the thought of child-bearing no attention. Previous to marriage the man may have lived a dissolute, bad life, and the wife, who is perhaps a feeble, delicate, even diseased person, may have been in a state of chronic invalidism.

Now, we argue that the time has arrived when the public should have the word of "advance" given by the physician, and the pregnant patients be given to understand their needs and be helped out of much of their difficulty in time to save them from worse impending evils. Why should we not expect such a proclamation to be received with favor when the laity as well as the profession are on the alert on every corner for the preventative? "Show me why" is on the lips of the intelligent, thinking

class of people everywhere, since the discovery of a better way of agitating the scientific mind, as never before.

While in preparation of this paper the writer has been impressed with the fact of the child-bearing being so largely represented in the number of those who are the victims of malignant diseases of the uterus. In Graily Hewett's "Diseases of Women," vol. ii., edited by Harriet Marion Sims in 1883, an article appears from Dr. Emmet, in which he says: "I have never known a woman to have any form of epithelial cancer of the uterus, unless she had at some time been impregnated." He further adds that of 53 cases observed by him in private practice, 51 had borne a number of children, and the 2 remaining were cases of criminal abortion. In the same volume, Dr. Tanner of London states with reference to the influence of child-bearing upon malignant disease of the uterus, that of 54 hospital cases he has seen, 40 had borne children. Scanzoni, in the same work, is quoted as having 72 cases, noted an average of 7.1 per cent. of pregnancies. In correspondence with several of our physicians on the subject, who have made the department a specialty, the universal testimony was that their cases are among the child-bearing. One says: "I have never had a case in which the patient has not borne children." One said (a specialist in the Old School in Boston): "My books contain notes of many thousand cases, which I have not yet tabulated, but my impression is that the disease is most common among women who have had many pregnancies." Another of our school, who has had a wide experience in malignant uterine diseases, considers them especially the misfortune of women who have suffered the agony of labor.

Besides this malady which has befallen our mothers, it is not uncommon for our patient to be heard saying, "I have been an invalid ever since giving birth to my first child." Now, whether this has any bearing upon the subject of "Preparation for Labor," it may not be possible for us to

determine. But knowing that all the period of pregnancy is attended, in the majority of cases, with more or less suffering, and, as we have seen, the mothers are victims to malignant diseases of the uterus, may we not consider the reasons for special work in preparation for birth of children greater than have hitherto existed?

If impregnation, pregnancy, and labor are to be considered physiological processes, we must argue that the cause of disease cannot be attached to either of the foregoing. If not, where shall we look for the cause? Does it lie in the act of expulsion or artificial delivery, or lacerating the tissues and injuring the parts, which, being neglected, afterward develop fatal diseases? These premises having a show of reason, what then? Would it not suggest the importance, not only of repair at the proper time, but of special care of the patient previous, so, if possible, to prevent the primary cause? What if the pregnant should be under strict surveillance, constantly guided, not only in diet and dress, and in other directions as now, but in all habits and arrangements that might influence both her and her offspring for their best welfare in every detail? If we can so direct the woman, educate the public to consider the pregnant state as so sacred as to be worthy of the best efforts of the obstetrician, the kindest consideration from all, might it not in time come to be a matter of such dignity and honor as to lessen the number of pregnancies among the lower classes, and increase the number among the virtuous and worthy? Would it not tend to relieve the pregnant of the many burdens laid upon her at the present time? Would any physician allow, if possible to prevent, the pregnant to fill the office of wife, mother, housekeeper, society woman, missionary-at-large, and perform a thousand and one other duties? True, we cannot regulate the household except so far as is detrimental to our patient. At present, the haphazard, irresponsible, indifferent states that control impreg-

nation have left nothing for the pregnant to do but to accept the situation, if she be conscientious, and in a majority of cases carry along all the duties that have previously been incumbent upon her. Often for the whole term of pregnancy she has no pleasure of life, no enjoyment, and little sympathy from any source. She will bear in silence and submit, but may not this be a reason for the nervous and hysterical state in which women are often found when labor approaches? The woman filled with apprehension and dread, worn out with long suffering, and perhaps in a state bordering upon frenzy, is it any wonder that labor is often protracted, and artificial aid so often resorted to? Perhaps the physician is so accustomed to such scenes that no special thought is given to it. It is something to be expected and to be made the best of when encountered. But from the standpoint of a woman, it appears logical that our energies should now be directed to the preparation of our pregnant patients for labor in a more earnest and scientific manner. We shall thereby know our patient well, be familiar with the anatomy of the pelvis, aware of any deformities, cure all malicious habits if any exist, and, as far as possible, allow the woman to be in every sense mistress of her own personal comfort and happiness.

With such interest might we not expect to prevent, to a great extent, the crime of feticide, which is so common, and rob the lying-in chamber of much of its discomfort and many of its accidents, thus insuring a condition with less to encounter both for physician and patient?

This paper might be understood to be more of a plea for the better management of the pregnant, than preparation for labor, but the fact cannot be ignored that our opportunities have been too limited to be of the greatest service to the child-bearing. We fear that suffering and loss of life have occurred that might have been prevented. Once the custom inaugurated, once let it be proclaimed that our

duties shall, as our friend Dr. Winterburn has said, commence from the period of conception, and the dawn of a new era for coming mothers is at hand. Is not the subject worthy of our thought? May we not answer the question, "When shall preparation for labor commence?" by the reply, "When pregnancy is *established*, and cease when it is *consummated*"?

PRACTICAL MIDWIFERY.

BY

W. H. HANCHETT, M. D.

WHEN we consider that the whole human race has to pass under the hand of the obstetrician before even the life of the individual can be assured; and when we consider that another life is also at stake in the advent of the new life, is it a wonder that we hold in high esteem the art of midwifery? Well do they who reiterate the prayer for "All women in the perils of childbirth."

Nor do we wonder that volumes have been written upon this subject. From prehistoric times, through savage and barbaric races down to the present civilization, the science and art of midwifery has been held as sacred, though ignorance may have shrouded it in all forms of superstition, and the wizard's hand may have claimed a magic in its art. The race, ever anxious for both mother and child, has grasped at every promise of help in the perilous hour of birth.

Unnumbered lives have been sacrificed upon the altar of ignorance. How many shall we say in the name of science? Even to-day, in this advanced civilization of the nineteenth century, how often do we hear of the untimely death of splendid womanhood, between the ages of twenty and thirty-five, from reasons that make our blood run cold.

Nothing can do the physician so much good in his

neighborhood as the reputation of being skillful in the chamber of childbirth; and nothing can do him so much harm as the reputation of being a bungler.

When the physician crosses the threshold of the lying-in room, he must bring with him confidence, hope, and courage. That hour may test his skill to the utmost. How often upon his face will his patient read hope or despair?

Practical midwifery requires many essentials, most prominent among which are: Care *before* confinement, care *during* confinement, and care *after* confinement. Other essentials are so numerous that volumes would be required to cover even the main points. All in this brief paper we can hope to do will be merely to hint at a few of the most prominent points under the above headings.

So firmly do I believe in the efficacy of our treatment during the term of gestation, that I shall devote much of my space to this very important period.

If it is possible to have the mother under your care for months before her confinement, so much the better. This pre-natal influence has much to do with the future welfare of both mother and child. If the mother can enjoy perfect health of body and mind, her lying-in will be more normal and her offspring more nearly perfect.

A large number of our cases we are not able to watch previous to confinement. The country physician is often called long distances to attend cases where he has never seen or heard of his patient before. Whenever we have the opportunity to treat our cases in advance, and when we can educate the public to believe that many of the risks of childbirth are averted by careful prescribing, dietetic, and hygienic influences, we will have accomplished much and paved the way for a safer accouchement.

In my own practice I have been very fortunate. As a matter of fact, for many years, most of my confinement cases have been dated ahead; thus I have had ample

opportunity to know whereof I speak when I say that labor may be made far easier and safer by this previous treatment. When we consider, furthermore, that the new life whose future happiness and health may depend upon kindly advice and scientific treatment of the mother during her pregnancy, how important it becomes. What, then, are some of the prominent points for the physician to observe in the care of the expectant mother?

First, he should remember that by the carefully selected medicine, nearly all the ills of pregnancy can be alleviated or cured. He should also remember that by the carefully selected medicines the unborn child may receive the greatest possible good. Phthisis pulmonalis, rachitis, scrofula, and a horde of ills may be cured or prevented in utero. Under our observation, where it was reasonable to believe that the child would probably be tainted with syphilis, we have seen the child born to perfect health.

Who of us has not been called to see a sad and melancholy woman who, with tears and fears, expressed to us her firm conviction that she would die in her confinement; this, too, in the earliest months of her condition. How often, under these conditions, have we seen pulsatilla bring a more hopeful mood, followed by an easy and normal labor.

How often have we seen aconite, where constant fear of impending danger, fear of death, restlessness, and anxiety prevailed, relieve our patient, and bring about a calm and happy mental condition!

How often nux vomica has relieved, where constipation, headache, and a long train of reflex symptoms from stomach and bowel difficulties have existed!

How often has ignatia, belladonna, ipecac, caulophyllin, and a score of other equally efficacious remedies come to the relief of our patient! It is also our duty to advise our patient as to diet and exercise, as to baths of air and water, to cheerful surroundings, to good literature. The

too often dreary months of pregnancy may be changed to months of hope and sunshine by the enjoyment of perfect health.

The diet should be largely of fruit and farinaceous food, with but little meat during the period of gestation. Long walks in the open air should be taken with regularity, if your patient can endure them. At all events, some open air exercise should be taken every day.

One of the very important points to be observed from the earliest months of pregnancy to the time of lying-in, is a careful and frequent examination of the urine. Renal abnormalities should be regarded with grave suspicion by the wise obstetrician. Eclampsia, with all of its horrors, may often be averted if we are quick to recognize changes taking place in the kidneys.

While the kidneys should be carefully watched during pregnancy, yet we must not be alarmed unnecessarily by slight changes in the urine. We should, however, be on the alert, and be able to detect serious changes at once.

The kidney of pregnancy must be viewed from a somewhat different standpoint from the kidney of the unpregnant woman. The boundary line between the physiological and pathological condition of the kidney in the pregnant woman is not well defined. While pregnancy is a normal condition, and the physiological processes of nature are supposed to accomplish their accustomed work, it is a fact, however, that these organs in their unusual efforts to perform their normal functions are over-strained. Albumen in slight appearance is found in the urine of many pregnant women. Some writers have even claimed that its presence is incidental to a normal condition.

The changes of the kidneys under the strain of a gravid uterus probably account for many renal complications. Locking up of the bowels by persistent constipation often produces kidney trouble. For this reason the bowels should be kept open and free at all hazards.

If at these tests we find albumen increasing in quantity, with a change in the specific gravity, with a diminished quantity of urine, we should view the situation as grave, and direct our treatment to the correction of the serious complication. Under such conditions our patient should be kept upon a milk diet, and the skin should be made to do its normal work. The hot or tepid bath, with rubbing and massage, will usually promote the proper perspiration, these giving a relaxed condition from the nerve and vascular strain.

Carefully selected remedies will do much in the correction of this condition, among which we may mention apis, arsenicum, belladonna, cantharis, gelsemium, lycopodium, sepia, as well as many others of equal value.

It is hardly within the scope of this paper to enter into a discussion of the proper time and necessity of bringing on premature labor. This, however, the practical midwife, under certain conditions, must be prepared to perform.

The care *during* confinement requires the practical physician's best skill and coolest judgment. The process of parturition is a normal one. In proof of this we have but to contemplate the brute creation as well as the human race. Reproduction is the great effort of nature and in the process of parturition science and art have come only to Nature's assistance. When she is able to carry on her work perfectly, our office is to stand supinely by and keep "hands off." However, under our higher civilized life, Nature needs careful watching and often skillful assistance.

When called to a confinement bed, respond promptly, and go prepared with the strong armamentarium of a case filled with carefully selected medicines, and an obstetrical bag complete with all the modern instruments and appliances to aid you in your work.

Among the essential characteristics of a successful obstetrician are deliberation, alertness, and self-possession. Early in your visit prepare yourself by thorough cleanli-

ness for your first examination. Here I will say that I believe in "antiseptic midwifery." From the overwhelming proofs of statistics, gathered from the most authentic sources, we know that the mortality among lying-in women has been amazingly reduced since the use of antiseptics.

The physician should always wash his hands thoroughly in a bichloride solution, or some other equally good antiseptic, before he has touched his patient. He should require the same of his nurse and all of his attendants. After the position is fully determined and arrangements have been completed for labor to proceed, frequent examinations should be omitted. There is not doubt that by frequent examination, and by lack of antiseptic or aseptic methods, much trouble has been brought upon the lying-in woman.

The nurse should be competent, and the physician should know that she has not recently come from cases of fever or erysipelas, or other zymotic diseases.

As labor proceeds and the pains become severe, I firmly believe in the use of an anæsthetic. I much prefer chloroform to ether where it is not contra-indicated. However, where the brain, heart, or lungs are seriously effected, chloroform should not be used. In this case, ether is much less harmful, it being contra-indicated where there are kidney troubles. Anæsthesia should not be carried to a great extent during labor in ordinary cases. The woman may hold in her own hand the handkerchief, which may be saturated occasionally by the nurse. A good test will be that when her hand falls by her side, the anæsthetic should be discontinued. My rule is usually to allow the woman to take enough to simply dull the sharp and exasperating pains. In hysteria and convulsions it should be used much more freely. It is a well-established fact that chloroform does not stop the contractions of the uterus, nor, as a rule, does it cause *post-partum* hemorrhage.

The lying-in room should be the best one in the house,

well ventilated, well lighted, and above the ground floor, if possible. All unnecessary draperies should be removed, and sunlight should be admitted freely. It should also be heated and kept at a uniform temperature, and as labor is about to be terminated it is highly essential to both mother and child that a temperature of at least seventy-five degrees should be maintained.

It is a question of good judgment as to how long labor should be allowed to proceed without interference. Our most successful obstetricians of to-day are allowing their women to labor a much shorter time without assistance than would have been considered wise a few years since. The dextrous and skillful accoucheur can so easily relieve the agonizing pains of labor, that the temptation to do so will often be so strong that he will not wait as calmly for Nature to exhaust herself as he did in the early years of his practice. In truth, I am free to admit that in my practice my conscience will not allow me to let the woman suffer in throes of childbirth overlong, when I know by oft repeated experience I can relieve her without injury to herself or child. Many a child's life has been sacrificed by a short delay when the proper time has come for assistance. However, as we have before stated, when the process of parturition proceeds in a normal manner, we are not warranted in any undue interference.

After delivery has taken place, the child should not be removed sufficiently to cause traction upon the cord, which should be ligated from three to four inches from the child's body, and the second ligature should be tied two inches below the first.

This method, I know, is subject to some criticism, but I know that the old and safer way of tying the cord is still practiced by careful obstetricians.

The concluding stage of labor, the delivery of the placenta, should be done with the greatest care and gentleness. It is usually my custom, and I believe that of most

careful physicians, to wait a few moments with the left hand firmly pressing down upon the abdominal walls over the fundus of the uterus, and with the right hand bringing gentle traction upon the cord. After a short period of rest to the patient, if the placenta be not expelled, more firm traction should be brought to bear, and the delivery should be accomplished without too long delay. With proper manipulation there is generally little trouble in completing this third stage of labor. For some time the left hand should be kept firmly grasping the uterus from the abdominal surface, and pressing it low in the pelvic cavity. This should be continued until firm contractions have taken place. The pulse at this time should be carefully watched. If it remains normal for a half hour after parturition you may feel safe. However, should it rise to a hundred or become intermittent, you have cause for anxiety. Do not leave your patient until the pulse becomes steady and strong. In truth, I believe the attending physician should never leave the parturient woman for an hour at least after birth.

Let me say, furthermore, when a physician essays the management of a case of labor, he should subordinate all other calls. No consideration whatever should hasten or divert him from his duty.

The care after confinement is of vital importance to the welfare of your patient and to your reputation as a practical obstetrician. As I have previously stated, thorough asepsis, *absolute cleanliness* should be rigidly practiced at this most important period in the lying-in room. All bedding, napkins, pads, and towels used about your patient should, previous to the time for their use, have been subjected to the spray of some reliable disinfectant. The patient must be kept thoroughly clean by proper bathing, which must be done with the utmost care, under the blankets, to prevent any possibility of chill during its progress. Vaginal or intra-uterine washes and douches should be studiously

avoided, unless there is good reason to believe a septic condition is impending. If from traumatic causes, or from retained *debris*, or from the cessation of the normal discharges, you find a rising temperature and symptoms which indicate poisoning, be ready to intelligently use and apply antiseptics. I believe, in this condition, hot water alone is not to be trusted. I believe that you must use some well-chosen germicide.

Here again, your skillful prescription will meet your most sanguine expectation and often avert septemia. If aconite, arsenicum, belladonna, rhus tox., or any other remedy will correct these conditions without local interference, so much the better.

While I believe that the well-chosen medicine will usually do this, I have no patience with the practitioner who spends valuable time in wandering over the field of *materia medica* in search of the "indicated remedy," while his patient's life is ebbing away in the crimson flow of a *post-partum* hemorrhage, or while a retained placenta, or decidual *debris* is furnishing fuel for the fires of puerperal fever.

Sir Joseph Lister may have modified his methods, but as someone has said, "The stream of antiseptics has washed away forever the awful epidemics of puerperal fever, and written with a pen dipped in antiseptic fluid a safer lying-in for womanhood." Statistics prove beyond peradventure that in hospital practice the death rate has been wonderfully reduced by antiseptic methods.

I believe in the immediate repair of a lacerated perineum, performed carefully and skillfully under aseptic or antiseptic precaution. There may be exceptions to this rule, but they are rare, such as a long and exhausting confinement, a severe shock, or profuse hemorrhage. Many of our more recent authorities advocate an immediate repair of a lacerated cervix. In my humble judgment this is impracticable and unwise. I believe, as a rule, the lying-in woman should be kept in bed two weeks, and then allowed to rise and go about with great caution.

During the period while the uterus is undergoing the changes of involution, the woman should spend much of her time in a recumbent position. By this many of the ills of her after life are prevented. Her diet for the first two or three days after confinement should be very light, and consist mainly of liquids, milk being the principal food.

After lactation has been thoroughly established and the danger of fever is passed, a more generous diet should be allowed. The bowels will usually take care of themselves and give little annoyance to a patient so treated.

He who hopes to become a practical and successful accoucheur must solve the problem of receptions in the lying-in room, and place upon the door "No admittance." This will offend many a relative and friend, but will as often save a woman's life.

In conclusion, the obstetrician's life is a hard one, full of nights of sleepless drudgery and days of worry and anxiety, but the man who makes a success of this department of a practitioner's work, holds in his grasp the key which unlocks the gates to the confidence, trust, and esteem of those to whom his ministries have been so much, and whose gratitude is a benediction in return.

Materia Medica.

Pilocarpine in Eclampsia.—Dr. H. E. Spalding is enthusiastic regarding the use of pilocarpine in eclampsia.

Mercurius Corrosivus in Albuminuria.—Dr. J. B. Custis regards mercurius cor., high, as almost a specific in albuminuria in pregnancy.

Sepia in Spermenorrhoea.—Dr. S. E. Bailey recommends sepia in young girls, when the menses have appeared but slightly and show no sign of increasing from month to month.

Belladonna Lilium Tigrinum.—Dr. E. C. Price.—In the female sphere both belladonna and lilium tigrinum affect right ovary. The belladonna pains come and go quickly ; lilium pains are more continuous. The mind symptoms of the latter are noticeably depressed—"the heavens brass, the earth ivory."

Gelsemium in Enuresis.—Gelsemium is useful in cases of general muscular weakness, in such parietic states as we find following diphtheria, because its effect is upon that part of the cerebro-spinal axis which controls the voluntary muscles, and the sphincter partakes of that tired, sluggish, weak feeling which is so characteristic of gelsemium.

Hydrastis in Leucorrhœa.—Dr. C. H. McElwee.—Tenacious, viscid, thick, yellow leucorrhœa. Either vaginal or uterine, hanging from the os in long viscid strings. Thick, ropy, hanging from the os in long viscid strings, accompanied often by great sexual excitement and pruritus. Tenacious discharges which cause a weak fainty feeling, sinking or gone feeling at the epigastrium, with violent and long-lasting palpitation of the heart.

Arum Tryphyllum in Scarlatina.—"Malignant scarlatina, with delirium ; nose discharges much watery, thin, ichorous fluid, making the nose, lips, and corners of the mouth cracked, sore, and bleeding ; excoriation of the inside of the mouth ; tongue red, papillæ swollen and prominent ; sore, moist places on the bends of the thighs and knees ; submaxillary glands swollen ; voice hoarse ; pulse 140, full ; urine very abundant and pale ; eruptions all over the body, with much itching and restlessness. The children pick the nose and lips and chin persistently, until they are raw and bleeding."

Apis in Ovarian Pains.—Dr. A. R. McMichael, Hahn. Mon.—Sharp, stinging periodic pains in ovaries, especially right one. Cutting in left, then in right ovary, extending down thigh, pain in right ovary with pain in left pectoral region, numbness and dullness beginning in right ovarian region, extending to hip and ribs and down the whole thigh, ovary enlarged, swollen and indurated, worse during menses, walking, touch, and heat better lying on right side. Concomitants : Headache with vertigo, eye-

lids swollen and œdematous, bag-like swelling under eyes. No thirst. Sensitiveness of the abdomen. Scanty dark urine.

Passiflora Incarnata in Reflex Disorders.—In the irregular pains of pregnancy there is nothing better. It is sometimes used for dysmenorrhea; it is recommended in epilepsy and morphine habit; it acts well in dysentery, relieving the pain and tenesmus; it cures diarrhea when accompanied by much pain; in the restlessness of fever you will be more than pleased with this remedy; it is invaluable in the clonic spasms of strychnine poisoning; in hysterical convulsions its action is decisive and pleasing; it has been recommended in chorea; in confinements it is a remedy to be thought of when labor becomes tedious, the pains ineffectual, irregular, spasmodic, and excessively painful, the patient being nervous and fretful. Here *passiflora* is of great service; it relaxes the muscles, relieves the nervousness, regulates and increases the force of the pains.

Murex Purpurea.—Dr. F. S. Keith.—The sexual and uterine symptoms of *murex purpurea* are striking and peculiar. Violent sexual excitement; great bearing down in the hypogastrium and uterine region; dragging, heaviness, weight in the pelvis as if the parts would protrude; sharp pains run from the uterus (right side) upward through abdomen to chest; menstruation is too frequent and very copious; during the period great suffering; painful weariness in the loins and back, the limbs give way. Associated with uterine disease we may have hemorrhoids.

Leucorrhœa, yellow, green, or mixed with blood; frequent desire to urinate, even at night; the patient is generally weak and run down; great weakness, sinking all-gone sensation in the pit of stomach; faint, hungry, must eat to relieve it. There is a great resemblance to *sepia*. The essential and characteristic difference between the two remedies lies in the sexual symptoms. *Sepia* has none of the sexual erethism of *murex*. With *sepia* sexual intercourse is distasteful or even intolerable; in *murex* we have the desire roused to the highest degree. Menstruation with *sepia* may be early or late, but is generally scanty. *Murex* produces profuse and frequent menses.

Gynecological Etchings.

Chlorosis.—Dr. S. Taylor, Med. Press.—This affection rarely shows itself in a woman who has borne children, and is most commonly seen in virgins from fourteen to twenty-five years old.

The symptoms are pallor, breathlessness on exertion, dyspepsia, constipation, usually scanty menses, etc.

Physical examination usually shows venous humming, a marked systolic murmur in the pulmonary artery, marked tympanitic resonance in one or both flanks, but usually no organic disease of any kind.

Frequently the victims of this disorder are confined to a shop or workroom and therefore cannot take exercise, but occasionally they are the children of wealthy parents, and will then be found indisposed to any avoidable exertion. Constipation is probably present in every case, although unless closely questioned on this subject a patient will usually give misleading answers.

Chlorosis appears to be a severe neurosis which, if neglected, is apt to terminate in gastric ulcer. That the ulcer is not present at the outset in those cases in which it is found later is shown by the absence of hematemesis, although the other classical symptoms are usually to be found.

Subjects of chlorosis are usually found to have a craving for pickles, acids, unripe fruit, etc., and the use of these must be stopped in treatment.

Leucorrhœa in Young, Unmarried Women.—In the treatment of leucorrhœa in young, unmarried women, instances frequently occur in which the usual practice of making an examination to ascertain the condition of the pelvic viscera is so obnoxious to the patient, or is so firmly opposed that the physician is forced to abandon it, and have recourse to medicine.

In such cases Dr. Slocum has learned to depend upon the specific action which cantharides appears to exercise upon the cells constituting the genital as well as the urinary system. It is probably by direct stimulation of the cell just to the point of successful resistance that the benefit is secured, as the dose is very

small. Strangury, or other unpleasant symptoms, has not been produced. The action of the drug has been so uniformly satisfactory that when it fails, such result forms a strong basis for suspecting the presence of something more than simple hyperæmia or mild inflammation. Lessening of the discharge is sometimes noted within five days, but in several cases of profuse discharge of four years' and longer duration, the treatment was not successful until after a month's persistent use.

Expulsion of the Fetus after Death.—Dr. E. Jones, reports, Brit. Med. Jour., the case of M. M., aged, thirty-seven. She was eight months gone in pregnancy. When seen she appeared in articulo; she had general dropsy, and was violently convulsed. The os was unusually rigid. I managed to dilate so as to admit an index finger. During manipulation her condition got so critical that we thought it advisable to delay dilatation. Dr. Thomas saw her four or five hours before death, and the os was then in the same condition. He saw her again five hours after death, and the child was in utero. He then assisted the midwife to lift her on to the bed. Two day afterward the undertaker, putting the body in the coffin, found the child and placenta between her legs, with fluid running freely from the vagina.

Dangers of Curettage.—Six cases, which show how dangerous this operation may be in certain conditions of the uterus, were recently reported in the Obstetrical and Gynecological Society of Berlin. The principal danger is that of perforation; but it is not equally great in all cases. In metritis the uterine tissues are resistant, and afford a solid floor upon which the curette may be carefully moved backward and forward with slight risk of perforation. The uterus is in a very different condition after abortion or labor. The tissues are modified and the thickness of the walls are greatly diminished. The dimensions of the cavity are irregular, and there is danger, even with the greatest precaution, of penetrating the peritoneal cavity. The cases reported were principally of this kind, and in several of them the perforation was so large that a loop of the intestines entered the cavity of the uterus. These cases are instructive, as they show that this operation should not be undertaken lightly, even by skillful men. They demonstrate what has been long known, and what cannot be too often repeated, that the uterus in involution is ruptured with the greatest facility; but these accidents should not deter the performing of curettage, when it is necessary to prevent infection from retained placenta debris.

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THE OPERATIVE TREATMENT OF PUS CONFINED TO THE PELVIS.

BY

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THAT pus within the pelvis, like pus in any part of the body, should be removed by surgical procedure is a surgical maxim which I trust has become so much of a maxim that it is not necessary to discuss it at this time. All surgeons, at least, are agreed that pus within the pelvis is a source of danger, and should not be permitted to make its escape spontaneously. For the last ten years I have followed the teachings of Lawson Tait and have drained many abscesses from above. Latterly, as most of you know, there is a tendency to approach pus accumulations confined to the pelvis from below. This practice was inaugurated by Pean, who removed per vaginam a uterus for septic bilateral disease of the adnexa. It was later on

popularized in France and Belgium by Richelot, Segond, and Jacobs. In this country Pratt, Henrotin, Polk, Edebohls, and others have warmly advocated the vaginal route.

Until a year ago it did not seem to me that the interests of the patient were best conserved by sacrificing the uterus when the disease was confined to the appendages, nor do I now think that the latter organ should be removed if the pus is confined to the tubes and the uterus is not extensively involved. There are, however, many cases of extensive pelvic inflammation, the result in the vast majority of instances of primary tubal disease, where the uterus is fixed, the endometrium involved, and the pelvic cavity full of exudates, that do not recover fully if the appendages alone are removed and the uterus is left behind. Usually these cases are greatly benefited by salpingo-oöphorectomy, but the diseased and enlarged uterus remains behind as a constant menace to health and comfort. I am not one of those who believe that the uterus is a perfectly useless organ without its adnexa, providing it is not too much diseased. On the contrary, I believe that it is the chief sexual center in many women, and that it constitutes an important part of the pelvic roof. All of us who have done abdominal work know that there are hundreds of women in the land who have had their ovaries and tubes alone removed and have regained their health perfectly. But there is all the difference in the world between a slightly enlarged and subinvolted uterus and one that is bound down by adhesions, twice its usual size, and perhaps helps to form the boundary of a pus cavity. It is hardly possible for a womb thus extensively diseased to so far return to its normal state as not to give rise to future suffering and inconvenience. I am convinced now, as I look over my case-book, that I have made many salpingo-oöphorectomies, working, as I did, according to the best light of the day, which were better off had the uterus been removed with the appendages. I have particularly in mind cases of pyosal-

pinx following in the train of gonorrheal endometritis. In many of these cases there is extensive cervical injury with resulting deposition of cicatricial tissue, and this in itself calls for a second operation if the uterus is left behind.

From the standpoint of ultimate results, then, the uterus should be removed in many cases of pyosalpinx and pelvic abscess. As to the relative safety of the two routes—the vaginal and the abdominal—I think that there can be but one argument, and that is in favor of the former. There is no operation involving the opening of the peritoneal cavity attended with greater mortality than are cœliotomies made for the removal of pent-up pus, when the entire pelvic cavity is packed with exudates and the intestines are matted together. I believe that all abdominal surgeons dread such cases. The shock attending the operation is tremendous. The hemorrhage is many times profuse, and can only be controlled by extensive gauze packing, and the mortality, especially in acute cases, is correspondingly high. Then, too, it is a very grave question as to whether or not it is best to disturb the adhesions when the intestines are matted together, as must be done if the operation is made from above. Not infrequently they will reform almost as soon as the abdomen is closed, and very often in such a way as to make them more dangerous than before they were broken up. In chronic cases, at least, the action of the bowel is often not seriously interfered with by such adhesions, and it is taking chances to disturb them. If, then, the uterus is to be removed, this (the breaking of intestinal adhesions) seems to be the only argument in favor of the abdominal route. In favor of the vaginal it may be said, first of all, that the mortality is infinitely less than in the abdominal. The statistics will bear out this statement beyond peradventure, though I am aware that there are those who will dispute the statement. This is true whether the free peritoneal cavity is opened into or not, and in many cases it is not necessary to penetrate the

peritoneal cavity. It is entirely possible to dig the uterus and its appendages from inflammatory exudates, and the lessening of shock which this procedure insures, when it can be done, will surprise one familiar only with the older operation. Another advantage, which is of the greatest importance, is the perfect drainage which the vaginal route affords. Fluids of all kinds more readily select a downward course, and the fluids of the abdominal cavity conform to the law of gravitation. This is secured, too, without the danger of ventral hernia, slight as it is, which attends the abdominal operation. In short, the vaginal route is the most direct one to the pelvic cavity, and the most direct route in all surgical procedures, unless insuperable obstacles exist, is always the best one to select. The argument that it is impossible to retreat in the vaginal operation, after it is once begun, carries with it but little weight, for the reason that with modern technique the surgeon is rarely called upon to retreat; should he be, he can do so even better than when a *coeliotomy* has been attempted. Convalescence is infinitely shorter in the vaginal operation, and the recovery in the class of cases indicated is, I believe, more complete.

There is, however, one objection to the vaginal route which must be borne in mind, and which I have not seen mentioned in any of the literature dealing with the subject which has passed under my observation. I refer to the persistence of fecal fistulæ when the abscess opens into the bowel. My experience with these cases is yet too limited to speak dogmatically, but I am inclined to believe that spontaneous closure of such fistulæ occurs less often when they communicate with the vagina than when the abscess is opened from above. In large abscesses communicating with the bowel, when the walls are stitched to the abdominal parietes, the cavity can be more readily packed with gauze than it can be when the opening is made from below, which promotes the closure of the opening.

It is by no means necessary to remove the uterus in all cases of pelvic accumulations. On the contrary, when the abscess points into the vagina, in large accumulations, there is nothing more simple than to open and drain it at its most dependent point. Indeed this may be the better way to proceed when the condition of the patient will not permit of a more radical procedure, even though a subsequent hysterectomy may be called for. This is especially true in acute and subacute pelvic inflammations, where the suffering is very great and the prostration marked. On the other hand, when the accumulation of pus is found in laparotomies to be limited to one or the other broad ligament, it may be best to close the abdomen after the appendages are removed and drain the abscess from below. This I did in Case I and have no reason to regret so doing.

A few words regarding the technique of vaginal hysterectomy. I have tried forci-pressure, the Pratt operation, the ligature, and the clamp method. As is well known, the majority of the French school still use the clamps or forceps for the purpose of securing the broad ligaments, as do many of the foremost surgeons of this country. That the clamp is a conservator of time there can be no doubt, and cases will every now and then be met with where one or more forceps will have to be left attached for the purpose of controlling bleeding from vessels beyond the reach of the ligature. While I have used forceps and clamps many times, the practice has always seemed to me both barbarous and unscientific. They give rise, first of all, to infinitely more pain than does the ligature, and I believe that the danger of rectal and vesical perforation is correspondingly greater. I have experimented with almost every form of clamp which has been devised for the purpose, and have used them altogether in twenty-two hysterectomies.

My experience with the Pratt method of enucleation is limited to three cases. One of these cases died from secondary hemorrhage, and is the only case of vaginal hysterectomy.

tomy which I have lost in five years. The other two cases were only attempts, for the bleeding was so profuse that I abandoned the method and returned to the ligature. I have no doubt but that practice would in time enable me to do the operation successfully and with but slight hemorrhage. However, I have seen Dr. Pratt do the operation four times, and in each instance, instead of being a "bloodless" operation, the bleeding was greater than with the ligature. In fairness to Dr. Pratt I desire to state that the operations I saw him do were all pretty difficult ones. There are, though, certain inherent objections to his method which appeal to me when the operation is done for malignant lesions, but which of course do not apply to the lesions under consideration. It is a principle as broad as surgery itself that in all malignant lesions, no matter in what part of the body they occur, extensive ablation of tissue is a *sine qua non*. That it is impossible to cut wide of the mark while "hugging" the uterus, as must be done if the organ is simply enucleated from its cellular bed, goes without saying. While, then, the Pratt operation may be applicable to non-malignant lesions, it seems to me that it is entirely inapplicable to malignant lesions. The ultimate test of all surgical procedures must be the results obtained, and I surmise that when the statistics of vaginal hysterectomy, two years hence, are written, it will be found that the advantages in carcinoma uteri will all be on the side of the older operation.

As regards the ligature: In the first vaginal hysterectomy done by me, on March 7, 1887, I followed the method of Schroeder, and tied the broad ligaments *en masse* with heavy silk ligature. The difficulties in securing the entire ligament in one ligature are very great, and there is great danger also of the ligature slipping after it is once secured. When this method was in vogue, there were many more cases of secondary hemorrhage reported than at the present time. Later on the ligaments were secured in

section and the results were much better. The objection, however, to the silk ligature is that it does not come away for a long time, and often never comes away, and perpetuating the discharge, remains as a source of irritation in the upper part of the vagina. To obviate this objection, catgut was substituted, but it is necessary to have the catgut especially prepared for the purpose. Ordinary carbolized catgut will absorb too quickly, and I had one case of secondary hemorrhage following its use. Messrs. Johnson & Johnson have prepared for me, through Parsons & Son of this city, a ten days' chromacized catgut (No. 2) which answers the purpose admirably. I am now using this ligature in all of my plastic work in and about the vagina, and have every reason to feel satisfied with it. For the last six months, with one exception, I have not removed a suture from the cervix, vagina, or perineum, using in all instances this preparation of catgut, and have not had a single failure. I mention this fact to show you that it is entirely safe to use it for securing the broad ligaments in vaginal hysterectomy. There is one little point in tying the chromacized gut which must be observed or the knot will slip; the single knot in the first hitch should always be used or the ligature will kink.

I first open the anterior and posterior *culs-de-sac* in the usual way, using for the purpose Emmet's cervical scissors. If there is plenty of room to do so, the peritoneum is next stitched to the vaginal mucous membrane both in front and behind. This will control the oozing which always results from the separation of the mucous membrane from the cervix. Unfortunately, when the uterus is large or the pelvis very small, this cannot always be done at this stage of the operation, and it is better to postpone this step than to spend too much time for its accomplishment. Nor is it always practicable to stitch the mucous and serous membranes together at any stage of the operation if the uterus is completely imbedded in inflammatory exudates.

Next, by means of the needle, which is a modification of the needle used by Leopold, a catgut ligature is carried into the base of one of the broad ligaments deep enough to secure the uterine artery of the corresponding side. This is securely tied, the end caught in catch-forceps and carried above the pubes out of the way. With the uterus firmly dragged down by means of a strong guy suture previously introduced into the cervix, as much of the ligament as is included in the ligature is cut with scissors. The opposite ligament is dealt with in the same way, when the uterus will descend somewhat. The entire ligament on either side is tied and cut off in this manner, usually four on each side being sufficient. The first two ligatures must be passed pretty close to the cervix for the purpose of avoiding the ureters. I do not mean by this that they should "hug" the cervix, for in operating for cancer they should be at least a quarter of an inch from it. The upper ligatures should all be passed as close to the pelvic wall as possible, and many times the appendages can be removed attached to the uterus. In the inflammatory diseases, however, this is not usually possible, and the appendages will have to be removed at a subsequent step of the operation. If pus pockets are opened into as the operation progresses, the pus should be washed away with the douche and should not be permitted to come in contact with the intestines. Should the intestines get in the way, after the peritoneal cavity is opened, they should be kept back by means of a medium-sized sponge to which is attached a strong string. After the uterus is removed the appendages, if not removed with it, should be separated, ligatured and cut off, if it is possible so to do, providing, of course, they are diseased, as they always are if the operation is done for the liberation of pus. A little practice will enable the operator to remove the appendages in nearly all instances, though not in all. In extremely bad cases, where the entire contents of the pelvis are matted

together, their removal may be not only impossible but it is sometimes unwise to attempt it. After the uterus is removed it is better to break down the septa dividing the several purulent accumulations, wash the cavities with a bichloride solution, and pack the wound with iodoform gauze. By doing this the peritoneal cavity is not opened into, the shock is reduced to a minimum, and the results are most satisfactory. It is true that the patient will never entirely recover her health, but she will be quite as well as she would have been had the operation been done from above, and the risk is infinitely less. It will at least place her in a condition so that if a subsequent operation from above becomes necessary she will be much better able to stand it.

As a final step, in cases where it can be done, the peritoneum is stitched to the vaginal mucous membrane with a running catgut suture, the stumps of the broad ligaments being drawn down by means of the ligatures attached to them and stitched into the wound. After the wound is completely encircled in this way, the anterior and posterior vaginal walls are brought together at the median line, when the ligature is tied. This will leave a small opening on either side of the median line through which I pass a strip of iodoform gauze for the purpose of insuring perfect drainage. All ligatures are now cut short and the vagina is packed with iodoform gauze, external dressings applied, and the patient placed in bed.

Should it be impossible to bring the peritoneum down in the manner described, there will remain a good deal of oozing from the wound which will have to be controlled. I think it best in these cases to wash the pelvic cavity with hot sterilized water, which will in a measure control the bleeding. After the oozing surfaces are dried with sponges the edges of the wound should be caught on either side with catch-forceps, and by means of a long dressing forceps a double layer of iodoform gauze, to the center of

which is attached a strong string, is carried into the pelvic cavity, pushing the intestines before it. Into this bag are packed long strips of gauze, so that when the string is pulled upon it will plug the wound from above exactly as the posterior nares may be plugged by means of a Bellocq's cannula. This is a little point which I am sure will be appreciated by all who try it.

In cases operated upon in this way the shock is usually slight and the convalescence uninterrupted. My experience in pus cases for which hysterectomy has been performed is limited to thirteen, but with the exception of Case VIII all have recovered nicely. This case will doubtless require a second operation for the closure of the fistula, but I feel confident that the fistula would have closed spontaneously had her system not been poisoned for years with opium.

I have made for all purposes fifty-three vaginal hysterectomies, with three deaths. Two of the fatalities resulted from secondary hemorrhage and one from obstruction of the bowel. In one of the cases dying from the hemorrhage the ligaments were tied *en masse*, and the second is the case already alluded to where the Pratt method was attempted. In the case of intestinal obstruction the forceps were used. This case is recorded in my text-book. I feel confident that had the ligature been used in the manner described, the obstruction would not have occurred.

I select the following cases as illustrative for the reason that they are somewhat typical, and for the reason also that they show the various methods of operating both from above and below. While my experience leads me to believe that the lower route is the preferable one in the vast majority of pus cases, I do not propose to be restricted to this route when another seems the preferable one; nor do I intend to confine myself to one technique. Cases are bound to present themselves where a combination of methods is necessary. In operating from above, when I find that the pus is confined to one or the other broad

ligament I do not hesitate to close the abdomen and finish the operation from below; nor should I hesitate to discontinue the operation from below and finish it from above were it necessary. However, Case V shows what can be done from below. I cannot imagine a more difficult operation than was this one, yet I succeeded in clearing the pelvis perfectly. I could have removed the appendages much more easily from above, but the woman would have had left behind a uterus which contained a small fibroid. I believe that her chances for complete recovery are infinitely better than would have been the case had I not removed the uterus, and certainly the danger attending the operation was infinitely less than if it had been done from above.

ILLUSTRATIVE CASES.

CASE I. Patient, *æt.* thirty-four, married and two children, the eldest being fifteen, and the youngest eight. No miscarriages. Menstruation from the beginning occurred every three weeks and was always attended with a great deal of pain, which confined her to the bed for one or two days of each period. The flow continued for six days and always gave rise to an intense headache. A few months after the birth of the first child she was taken with a very severe pain in the left side which extended to the stomach and back. From that time on any unusual exercise, as a long walk or lifting, would bring on this pain. Has never been able to do even light work without producing burning sickening pain in the left side and back. In 1890 she began to have a discharge of pus from the rectum, which varied in quantity from one-half to one ounce in the twenty-four hours. This discharge continued for four years and was attended with so much pain that opiates were necessary in order to control it. She was never free from pain unless under the influence of opiates. In June of 1894 I was called by Dr. K. Hathaway of Wellington to make an examination. The forgoing history was elicited. The pus

which passed the bowels was of the most offensive character. Upon examination I found that the appendages were apparently buried in inflammatory exudates and that there was a mass of some kind corresponding to the left broad ligament. It was only necessary to look at the patient to see that she was a great sufferer.

A week from the time I first saw her I had her in the Huron Street Hospital and opened the abdomen from above. The appendages were dug from the exudates with comparatively little trouble, but I discovered that there was an accumulation of fluid in the folds of the left broad ligament. I therefore closed the abdominal wound, placed the patient in the lithotomy posture at the foot of the table, and, without introducing a speculum, thrust a sharp-pointed scissors, guided by the finger, into the abscess, through the lateral fornix. The scissors were then expanded and withdrawn, thus liberating the pus. The pus cavity was now washed with a bichloride solution and packed with gauze, as was also the vagina. The cavity was washed out daily and repacked. Convalescence was uninterrupted, and in less than three weeks' time the opium was discontinued. The patient weighed before the operation 120 pounds. Now she weighs 172, and a more grateful woman never lived.

CASE II. Patient, æt. thirty-four, referred to me by Dr. G. W. Arbuckle of this city. One child, a young lady. Eighteen years ago she was kicked in the abdomen, which gave rise to extensive and serious pelvic inflammation. Following the attack of inflammation there was a discharge of pus from the rectum, which occurred periodically until the last operation was performed. I was called to see her in September of last year. Though not emaciated as was Case I, the skin showed very clearly that the system was contaminated by the absorption of pus. I found on examination that there was a mass on the right side of the pelvis which extended as high as the umbilicus, and that all of the pelvic contents were matted together. One year previously

a well known and skillful surgeon opened the abdomen, but found so many adhesions that he closed it again without attempting to do anything. A ventral hernia resulted from this operation. She was much worse following this exploration and appealed to me to do something for her. Menstruation has been very profuse during her entire illness. I opened the abdomen on November 7, 1894, in the presence of the class of the Cleveland Medical College. A knuckle of intestine was found adhering to the old abdominal scar, which was dissected off with some difficulty. The pelvic contents were indistinguishable one from the other. No trace of either ovary or tube could be found. The large mass which could be felt from above on the right side, and which evidently contained fluid of some kind, was as large as a fetal head, but so firmly fixed to the pelvic roof that it could not be attached to the abdominal wound. I accordingly separated its upper peritoneal covering in such a way that I could draw it upward and attach it to the lower angle of the wound. Before doing this, however, a quart of most offensive pus was drawn off with an aspirator. Next, by means of quilted sutures, the pus sack was carefully attached to the abdominal opening, but incision into it was not made at this time. Dressings were applied and the patient placed in bed. Three days later, after the adhesions of the abscess wall to the abdominal wound were firm, so that no pus could find its way into the peritoneal cavity, the patient was again etherized and an opening into the pus cavity made. The cavity was thoroughly washed and packed with iodoform gauze. More or less gas and some fecal matter escaped from the opening for several days. The wound was washed and packed daily and in five weeks' time was completely healed. On January 22, 1895, she wrote me: "The operation is a success, and I am better in health than for many years," which is literally true, though she is not as well as I wish she were. There has been no more pus from the rectum

and the symptoms of pyæmia have entirely vanished, but there is yet a good deal of pain, and the menorrhagia continues. Were I to operate on this case again I think that I should attempt it from below, for if the uterus had been removed there would of course be no more menstruation. In cases attended by excessive hemorrhage this is a point well worthy of consideration.

CASE III. Patient, æt. twenty-four, married for two weeks when her husband deserted her, leaving her with violent pelvic inflammation, the result of gonorrhea. Professor P. A. Cole, whose patient she was, brought her to the Huron Street Hospital in February of this year and placed her under my care. At the time of entering the hospital the temperature ranged from 100° to 104° F., the pulse from 110 to 150; the prostration was very great. Dullness extended above the umbilicus on either side and the entire pelvis was literally packed with exudates. Pain was only partially controlled by the free use of opiates. I felt sure that an attempt to reach the appendages from above would prove fatal at that time, so an exploration was made with the aspirator through the posterior vaginal fornix. At least three pints of serum was drawn off through the aspirator. A director was passed alongside of the aspirating needle which served as a guide for a long sharp-pointed scissors, which was expanded and withdrawn. After the cavity was washed out it was packed with iodoform gauze. This preliminary operation afforded much relief and the patient rallied in four weeks, so that it seemed best to remove the uterus and afford complete drainage. This was done in April. The uterus was absolutely dug from the surrounding exudates; the pus tubes opened into, but not removed. The peritoneal cavity was not opened, nor were the intestines seen during any step of the operation. It would have been utterly impossible to remove the appendages and an attempt to do so would surely have ruptured the bowel. Then, too, the prostrated condition of the

patient forbade taking undue chances. The resulting excavation was packed with iodoform gauze. To-day she is infinitely better and is beginning to walk. I am sure that she would have died had either the uterus or the appendages been removed when she first came to me. By first relieving the system by drawing off the fluid from the Douglas *cul-de-sac* she rallied sufficiently to justify the more radical procedure. However, I do not believe that she could have lived through a cœliotomy at the time the uterus was removed. As it is her life will be spared, and I think that in due time she will regain a fair degree of health. I say a fair degree of health, for the reason that I do not believe that any woman who has once had her pelvic and abdominal contents matted together can ever be quite the same that she was before the inflammatory attack which was responsible for the exudates.

CASE IV. Patient, æt. forty-six, referred to me by Professor W. H. Baxter. Four children, the youngest being sixteen. For years has had more or less pain in the pelvic region, with nausea and vomiting. Profuse attacks of hemorrhage from time to time, so that she is anæmic and very much emaciated. An offensive leucorrhœa during the intervals between the hemorrhages. Upon examination the uterus was found retroverted, greatly enlarged, exquisitely tender, and firmly attached to the rectum. For six months before I saw her she had been compelled to subsist almost entirely on liquid food because of the condition of the stomach. In March of this year she was brought to the Huron Street Hospital, and I removed the uterus and appendages through the vagina. The right tube was distended with pus, and the right ovary was bound down between the fundus and the rectum. The fundus was separated from the rectum with some difficulty, but finally both appendages were removed with the organ. The wound was closed in the usual way and the patient placed in bed. Notwithstanding her extremely prostrated condition

the shock was practically *nil*, and the convalescence was uninterrupted. She returned to her home three weeks from the day of the operation, and on my first visit to her I found her eating with relish fried oysters, cottage cheese, fried potatoes, pickles, and coffee. The stomach trouble was purely reflex and has almost entirely disappeared.

CASE V. The patient belongs to Dr. W. H. Gifford, who has kindly furnished me with the following history: She is thirty-eight years of age, married, and has never been pregnant. Has always been irregular, sometimes missing three or four successive periods. To make a long story short, she was exceedingly anxious to become pregnant, and gave her imagination full sway. In due time enlargement of the breasts and tympanitic distention of the abdomen came—in short, all of the symptoms of pseudocyesis. The baby's toilet was prepared and the nurse engaged, but no baby came. She finally consulted Dr. Gifford, who made an examination and informed her that she was not pregnant and in all probability never would be. There was a sharp hemorrhage from the uterus in December of last year and March of this, which was so unlike her usual periods that she did not think it was menstrual in character. She has suffered intense and gradually increasing pain in the pelvis for the last two years. There was more or less fever with the exacerbations of pain, though there is no history of severe pelvic inflammation. I suspect that the inflammation is of gonorrheal origin, though I have not examined the discharge for gonococci. She entered Huron Street Hospital on May 8, and I operated on the following day. A more difficult operation could not well be imagined. The patient is large and fleshy, the vagina naturally small, while the pelvis is deep. An effort to drag the uterus down after the anæsthetic had been given showed that the organ was perfectly fixed. Pus pockets on either side were opened into as the dissection progressed, and at least a teacupful of pus was liberated. I finally delivered the uterus in a

mutilated condition. In its interior is a small fibroid the size of a small apple. The appendages of both sides were then separated from their surrounding attachments, tied, and cut off. The peritoneal cavity was opened into and the intestines exposed. After the parts were removed the pelvis was washed with sterilized water, and as the oozing was persistent the wound was dressed open and packed in the manner described. The operation lasted for over an hour, but the shock was not at all bad. She is convalescing nicely with every prospect of a perfect cure.

CASE VI. I am also indebted to Dr. R. Hathaway for this patient. It is one of sarcoma uteri complicated with pyosalpinx. The patient is forty-two years of age, and has flowed ordinally for the last four years. The discharge during the intermenstrual period was watery, offensive, and contained "pieces of flesh." She has had four children, the youngest being six years of age. Notwithstanding the fact that she has been under treatment more or less of the time for the four years she has been flowing, the two medical gentlemen under whose care she was did not see fit to make an examination. Dr. Hathaway saw her for the first time on April 20, and at once discovered that there was something seriously wrong. Indeed he made the diagnosis for me, and two days later called me to see her. The uterus was found much enlarged, and retroverted so that the cervix was crowded up under the pubes in front. The fundus was exquisitely sensitive. The general condition was in every way bad—the complexion straw-colored, the emaciation marked, and the pulse 120. Inasmuch as an operation promised the only hope of relief it was decided to bring her to the city and make the attempt. A vaginal hysterectomy was made at the Huron Street Hospital on April 27. The broad ligaments were tied and cut in sections with but little difficulty. The left tube contained pus and was removed with the corresponding ovary. The wound was closed in the usual way and the patient returned to her bed. The shock was not great and to-day, two

weeks from the time of the operation, she is taking her meals sitting up in bed.

The uterus in this case was eight inches in length, and contained a sarcomatous tumor the size of an orange which was attached to the posterior wall of the fundus.

CASE VII. The tubes were not distended with pus though the ovaries were dug from inflammatory exudates. The patient is thirty years of age, married, and has had one child. She was brought to me by Dr. Kate Parsons of Cleveland. She has had menorrhagia and metrorrhagia for years, and has become almost exsanguinated. She is a little frail creature and weighs but seventy-five pounds. The discharge was typical of sarcoma, being watery and containing the "brain-like" masses which are put down in text-books as pathognomonic of this form of malignancy. The uterus was removed in the usual way and the appendages peeled from their inflammatory bed. There was much oozing, which was controlled by gauze packing. Both ovaries were cystically degenerated and she has long had pretty much the same condition of the stomach described in Case IV. The shock was somewhat profound, but she rallied nicely and thus far her convalescence has been uninterrupted. The uterus contains a tumor the size of a small orange, which is a fibroid of the submucous variety. Had the ovaries been removed from above in this case I fear that the hemorrhage from the uterus would have persisted for an indefinite length of time. I should have added that the organ was retroverted, attached to the rectum, and that a curetting had been done one year ago without benefit.

CASE VIII. Patient referred to me by Dr. W. H. Stedman of Cleveland. She is forty-eight years of age, and has passed pus through the bowels for the last twenty-one years. Her illness dates from childbirth, at which time she undoubtedly had septic inflammation of the uterus and the pelvic organs. Her suffering had been almost indescribable, and she has reached a point where she is taking four ounces of the tincture of opium a day in

order to relieve the pain. When I first examined her an indistinct mass could be felt on the left side, which undoubtedly communicated with the rectum. Early in September of 1894 I opened the abdomen from above, dug the appendages from inflammatory exudates, opened the abscess and drained it through the abdominal wound. In the course of three weeks the cavity had entirely filled in from the bottom and she was permitted to leave the hospital, though against my advice. There was no discharge of pus through the rectum for some four or five weeks after her return home, but at the end of that time she overdid in some way, and was soon as bad as ever. She returned to the clinic in February, and I removed the uterus per vaginam. Of course in doing this the abscess cavity was opened into, as the uterus was a part of the abscess wall. The opening into the rectum now communicated with the vagina, and from the very first fecal matter escaped through the latter organ. This has shown no disposition to heal, and I shall have to perform another operation in order to close it. Twice before I have been so unfortunate as to get into the rectum in making vaginal hysterectomies, but in each instance the fistula closed spontaneously. Undoubtedly the poisoned condition of the patient's system has had much to do with perpetuating the discharge. I should have added that forceps, instead of the catgut, were used to secure the broad ligaments and that the bleeding was very profuse.

THE LOCAL TREATMENT OF PUERPERAL SEPTICÆMIA.

BY

G. R. SOUTHWICK, M. D.

THE propriety of making local applications to the uterine cavity in cases of septic infection after labor, no longer occupies debatable ground. The array of instru-

ments for this purpose displayed by all instrument dealers shows a decided demand for them and reflect professional opinion.

Irrigation has been a most popular method and is likely to continue in favor as one which is safe for the general practitioner to use, and which, in suitable cases, gives good results. By suitable cases we mean those in which the uterine cavity is empty and the signs of sepsis are due chiefly to the intoxication of the system with the toxins of decomposing fluids, a *sapræmia* rather than a genuine infection with the staphylococci or streptococci pyogenes.

The douche is not without danger, and there must be those present who have seen the symptoms increase alarmingly after an intra-uterine douche, instead of the hoped-for improvement. This can be attributed to two chief causes and one of minor importance. One is too much force to the irrigating current, which drives septic matter or the irrigating fluid into the maternal circulation. The reservoir of injection fluid never should be two feet above the patient, and a double-channeled douche tube must be used. Experiments on the cadavers of women recently delivered have shown that the slight pressure of water held fifteen or twenty inches above the body, allows the injection fluid to enter the circulation if the escape of the water is only checked at the cervix. This is liable to occur in consequence of the local irritation of the fluid-producing uterine contractions. The uterus, under favorable conditions, may contract on distended lymphatic vessels, and thus immediately force septic material into the circulation. The conditions favorable for producing such a disaster fortunately are rare. Aggravation of the symptoms may also follow rough usage with the injection tube, and may open granulating wounds, thus providing fresh channels for infection. One of the most common reasons why irrigation fails to do good, when the uterus is empty, is because the douche is employed too late and the septic germs have

invaded the fallopian tubes, or the lymphatics, and are beyond the reach of the douche.

The intra-uterine douche has its dangers, but it is too good and too safe a method of treatment for the general practitioner to abandon it; yet it has its limitations. It will cleanse the uterine cavity from decomposing fluids, but it will not remove decomposing solids, like placenta tissue, portions of hypertrophied decidua, infected clots, nor will it make the uterine cavity aseptic which contains them. This should be an important dividing line for the practical obstetrician. It is not easy to determine always the presence of a foreign body in the uterine cavity, but a careful and thorough bi-manual examination often will enable the examiner to introduce a finger through the internal os, and to touch offending substances. Clinical experience will come to our aid in doubtful cases. When irrigation is going to do good its action is very prompt. Twelve to twenty-four hours will show very decided improvement in pulse and temperature. We remember our experience with remedies. We do not change the remedy when the patient is improving, and we therefore do not change irrigation under similar circumstances. If, however, there is no such improvement, we may be equally sure that irrigation is not the remedy. It must be abandoned at once, and other treatment begun without delay. The frequency of decomposing *débris* in the uterine cavity is far more common than would be thought possible by one not accustomed to using the curette in the puerperal uterus. The obstetrician may examine the placenta after delivery and find it actually intact, and yet there may remain a supplementary placenta, the embryonic remains of a twin pregnancy, pieces of hypertrophied decidua, or, later, the uterus may be filled with septic or decomposing clots. The examination of a placenta after delivery is an important rule in obstetrical practice, but it too often disarms suspicion and the uterine

cavity is believed to be empty when it too often contains a fountain of poison in the very center of life.

The frequency of such organized and decomposing material in the uterus is the reason why irrigation alone fails in many cases. More radical treatment is necessary. The curette must be employed. The danger of perforating the soft uterine wall has been a bugbear to many a physician. There is danger of it, but much less danger than is generally believed—a danger which is far less than allowing septic matter to remain in utero. There are curettes both safe and dangerous. Select one for the puerperal uterus which has a broad, dull, well-rounded loop. Use it with only moderate pressure and gentle touch, raking the uterus systematically from fundus to cervix, all around the cavity once, like paring a potato, to remove all the *débris*, but not to scrape the same place a second time. The Martin-Roux curette is a favorite instrument with me for use in the puerperal state in the first half of pregnancy, and, in a few cases, after full-term delivery and a contracted cervix. These curettes have been modified by using a hollow handle and shank, so as to douche the uterus at the same time. The douche curette is convenient, but more care is necessary to keep the instrument aseptic.

The curette brings another danger—that of opening granulating wounds and causing new ones, which become new channels of infection and the extension of the disease. This is best met by careful use of the instrument and very thorough irrigation before, during, and after its use, followed by an iodoform gauze packing.

Wiping the uterine cavity with gauze has been recommended as safer than the curette, but it is not to be depended upon to do as effective work. I have tried it with some advantage after the curette and douches have been used.

Many are the antiseptics lauded for intra-uterine treat-

ment, and many are the victims of their use. Solutions ordinarily safe are liable to poison susceptible patients. Corrosive sublimate is too dangerous for intra-uterine irrigation except in solutions so weak as to be practically inert. Carbolic acid can be recommended as only less dangerous for intra-uterine irrigation and its derivatives, such as creoline, serve an excellent purpose, as does the permanganate of potash, but their actual germicidal value is not fully determined. Tincture of iodine has its friends. Thymol has found warm advocates in the Vienna clinic, as being a safe medication. The dioxide of hydrogen, mixed with an equal amount of water, has become a favorite application in my practice. It is safe and has proved very efficient. Sterilized water is used first for cleansing purposes, and then the solution of dioxide of hydrogen is freely employed. In severe cases I have wiped the uterine cavity out with the fifteen volume solution, after previous irrigation with the usual solution, and I have also applied it to unhealthy lacerations in the same way. It should be used as strong as half-and-half with water. Weaker solutions are not much more than clear water and worth about as much from an antiseptic point of view. It acts in the tissue beyond the reach of the curette, destroying all the particles of decomposing matter. There is no danger of poisoning from it, and I have seen the very best of results in some severe cases.

The general plan of treatment adopted by the writer may be outlined as follows: Septic infection in the puerperal state after the interruption of pregnancy in its first half, calls for the immediate use of the curette, as in this period portions of the placenta very often are retained and irrigation alone is a waste of valuable time. If the signs of sepsis appear after delivery at full term, and are not very pronounced, and very careful digital examination fails to show anything in the uterine cavity, the vagina is thoroughly cleansed, and then the uterus, first with steril-

ized water and then with dioxide of hydrogen. If decided improvement is not apparent within twenty-four hours, no more time is wasted on irrigation alone. The puerperal tract is clearly cleansed, the curette is used immediately, and the uterine cavity irrigated with dioxide of hydrogen equal parts with water, and then wiped out with the fifteen volume solution and packed with iodoform gauze. Irrigation and the gauze packing are repeated within twenty-four to thirty-six hours if necessary. The gauze stimulates uterine contractions and keeps the cavity aseptic in a measure. The iodoform gauze tampon has very little value for drainage, contrary to common opinion, but it promotes a discharge of serum into the uterine cavity which, in one sense, washes out the interstices between the muscular and connective tissue fibers. This treatment has shown very excellent results, especially when undertaken early, but it is reasonably safe and, I believe, a safe thing to try in even desperate cases. It gives almost the only chance there may be with death staring at us, as we seek to snatch his victim from him. It must be remembered, however, that we have to deal with a self-multiplying, a self-generating poison. Local treatment will do no good when the poison has extended beyond the uterus and established new centers of development beyond the reach of local or surgical aid. If benefit does not follow the thorough application of the above method, there is little use and probable harm in continuing such local treatment, and it should be abandoned.

The question of surgical aid in the treatment of puerperal sepsis has been urged chiefly by American obstetricians, and has a limited, though a very important application. It is useless in the presence of general septic peritonitis, but there are cases of puerperal sepsis originating from infection from the bruising during labor of some cyst, fibroid, and very rarely, from a pyosalpinx. Early coeliotomy in these last cases and the results are likely to be good. There are also cases in which there is a localized

bunch, the old-fashioned exudation of pelvic cellulitis, in the pelvis. It may be a pyosalpinx, it is likely to be an encapsuled abscess. Early removal of the former or drainage of the latter may save the patient's life.

There is another important class of cases in which irrigation and the curette have been tried in vain for three days. There is no amelioration, no exudation in the pelvis, and the patient is growing worse. There is nothing to hope for from expectant treatment. Hysterectomy, more especially by the vagina, holds out a chance, and oftentimes the only chance the patient has for her life, if it is promptly performed. Such an operation is contra-indicated by general septic peritonitis, extreme weakness, and by confusion of the sensorium. Dr. Hirst is of the opinion that hysterectomy should not be performed unless the inflammation has extended beyond the uterus, excluding in this way cases of infection through the veins and lymphatics. This rule is open to question, as there are cases in which the uterus is infected and its substance beyond the reach of the douche and curette, and if the operator waits for extension of inflammation beyond the uterus, he may have waited until the septic invasion has gone beyond the possibility of surgical aid.

The fact cannot be emphasized too strongly that septic infection must be recognized promptly and treated immediately by active local measures. Expectant treatment is the worst kind of treatment. Most cases will yield to early irrigation, or the curette, or both, with the free use of dioxide of hydrogen and iodoform gauze. In the few cases which fail to improve, the patient should not be allowed to sink into her grave by idle procrastination, but the possible benefit from surgical aid demands our careful consideration.

NASAL AND AURAL COMPLICATIONS OF THE EXANTHEMATA.

BY

C. GURNEE FELLOWS, M. D.

I SELECT this subject because it ought to be of general interest to all who treat the exanthematous diseases; because in the books and in the journals I find but scanty reference to it; and because a reminder of even well-known methods is often as good as the presentation of new ones.

The exanthematous diseases are met with as a rule among children, and it is the early detection of nasal and aural trouble that I wish to emphasize as important, and hope it may lead to the prevention of much that seems incurable.

This is an age of preventive medicine. I confidently expect that the next generation of physicians will not see the many cases of hopeless deafness, chronic aural discharge, nasal obstructions, and discharges which we daily encounter. Our predecessors are not entirely to blame for the present condition of things, for many new ideas and devices have but recently been added to our armamentarium. In this day of specialism we cannot expect one man to cover the whole field; so I want to urge the importance of early consultation. When complications arise I believe it not only does not hurt a physician in the eyes of his patrons, but rather strengthens him. In even our everyday cases we may fail to note all, or falling too often into a routine, it is well to be advised and have our failings pointed out. The patient has the right to our best efforts, and all suggestions that can be secured should be welcomed.

The throat, nose, and ear are often affected in the course

of measles and scarlet fever, and less often in varicella and r  theln. In both measles and scarlet fever one of the earliest signs of the disease is the eruption on the mucous membrane of the pharynx. Why then should we not watch its spread, outward to the skin and inward in all directions over the mucous membrane. It is, I believe, generally thought that the catarrhal complications, both nasal and aural, of measles do not amount to much, and perhaps they are not so serious as those of scarlet fever, but they are quite serious enough, and should be prevented if possible.

What are the nasal complications? Acute rhinitis, acute swelling and inflammation in and about any existing adenoid tissue; and these give rise to profuse secretion, thin at first, growing thicker and more sticky; nasal respiration is impeded or suspended; the physiological function of respiration is interfered with; oxygenation is not so perfect, therefore the lungs feel the change, the heart works harder, the system is less able to withstand the disease. If membranes are present, or if only mucus, it has more opportunity for decomposition and less for exfoliation, and sepsis is added to the disease already existing.

As to the ear,—What does it present? Swelling and closure of the eustachian tubes, congestion, inflammation of the middle ear, suppuration, perforation of the drum, while chronic suppuration often remains after a recession of the acute complications. The same complications exist in scarlet fever, only, as a rule, they come earlier, stay longer, and are less liable to a spontaneous cure.

There is a great diversity of opinion among physicians as to local treatment, the wet pack, baths, etc., in the treatment of the exanthemata, and so there may be in the complications. Each case must be treated by itself and the physician's judgment and experience will be the best guide. I believe in local treatment combined with the internal. There is more in the treatment of nasal diseases

than simply spraying, and of aural diseases than the use of the syringe. But first proper methods of examination must be learned. For all cavities, the use of the head-mirror and reflected light is, if not essential, at least preferable; specula of all kinds for their respective organs are necessary, and a silver probe and cocaine often useful.

Examine the throat to see if the tonsils are producing obstruction, the pharynx as to the condition of the eruption or involvement of the deeper layers of mucous membrane; the post-nares, with the small rhinoscopic mirror to get the condition of the vault and eustachian tubes. Anteriorly look at the nares. If obstructed, a little two per cent. cocaine on cotton will remove the acute swelling and allow you to judge as to what remains.

The ear may show a congested drum, secretion behind it bulging and the point of impending perforation, or, if already broken, the whole external canal may be filled with pus. The exhaustive treatment cannot be here given, nor is it required. I will say nothing as to the treatment of the general or constitutional disease. It often will be all that is required, and the patient will recover his health in full with all his senses intact. But the exceptional cases are the ones that tax our ingenuity, that cause us to worry, and that make or mar our reputation as well.

Diagnosis is of first importance. It shows us what we must expect, and warns us to avoid complications by early treatment. If the fever is passed, it teaches the necessity of advising special treatment of the affected organs. I want to protest against the folly of teaching that a child will "outgrow" a discharging ear or nose.

Cleansing sprays, antiseptics, and washes when needed and when not contra-indicated, will be acceptable to the patient. If discharges once removed leave clear nares, then oleaginous sprays will help to maintain their potency.

Cocaine, though not to be used excessively, will often help to relieve turgescence of the turbinated bodies and

prevent aural and ocular complications. The internal remedy should cover the case, and if so will take care of the disease and its complications.

As to the ear. Closure of the eustachian tube can be avoided by Politzer's system, which is, however, not generally advisable, for fear of driving mucus into the middle ear or causing a perforation. Cocaine applied to the mouth of the tube may accomplish the purpose. Inhalation of vapors, steam, etc., will maintain it and help to promote general resolution.

Externally to the ears, dry heat to prevent suppuration, moist to encourage it. If the drum be not broken, a drop of aconite or plantago tincture, a few drops of two per cent. atropine, or possibly cocaine will relieve the pain. If suppuration exists, gentle syringing with antiseptic solutions, followed by drying with cotton and allowing it to remain dry. Avoid irritating applications and do not repress the discharge. The acute form can be readily controlled.

INFANT FEEDING.

BY

CHARLES E. FISHER, M. D.

General Considerations.—The natural food of infancy is the mother's milk. It is believed that there is no more certain fact known in connection with infantile mortality than that fully seventy-five per cent. of deaths occurring during the first year of child life are among infants fed artificially. The natural debility of the gastric and intestinal juices accounts, in great part, for this high mortality rate. The muscular digestive apparatus may be sufficiently strong and vigorous to perform its part of the digestive act perfectly, but it must be remembered that

chemistry plays a most important part in the digestion of food, and, since nature has undertaken to furnish only such strengths and characters of ferments as will take care of the maternal milk, it is easy to understand how all sorts of disturbances of the digestive organs, and consequently of the general system, may arise from introduction of food of such constituency as cannot be successfully acted upon by the digestive secretions of the infant. According to Meigs, human milk is composed, in the early weeks of infancy, of a fraction less than ninety per cent. of water and a fraction more than ten per cent. of solids. Of the solids, casein is present in the proportion of 1.665; albumen, .700; fat, 3.45; sugar, 3.274; salts, 0.446. Cow's milk, which is so often substituted, many times upon the most flimsy excuse, for the mother's milk, contains a fraction more than eighty-seven per cent. of water and a trifle less than thirteen per cent. of solids. These solids consist of casein, 3.222; butter, 4.209; sugar, 5; salts, .527. It will be noticed that the difference in the composition of the human and cow's milk is not, after all, so great so far as the relative proportions of water and solids go; but it will be also noticed that the great difference in the composition of the solids lies in the direction of casein and sugar. Woman's milk has 1.665 of casein, as against 3.222 in the milk of the cow, and of sugar the mother gives 3.274, as against an even five per cent. for the cow's milk. In the later months of the nursing period the differences are not so great; but, as will be seen, in the early months of child life the infant will have to handle fully twice the quantity of casein and nearly twice as much sugar if cow's milk be substituted for the natural diet.

Again, not only are these differences marked in the relative quantity of casein and sugar, but there is a very great difference in the density of the casein and the general constituents of the milk. During the first few days the secretion from the mother's breast contains less sugar, more

salts, and a larger quantity of albumen, and is of higher specific gravity than the milk supplied by her later. Colostrum is not a pure type of milk, but it is well adapted to the necessities of the young child for the purpose of clearing away the meconium. Nature has evidently attempted to suit it to the first needs of the baby and the first possibilities of its digestive organs. Human milk is more slowly curdled than cow's milk, and a flocculent precipitate is formed, which is steadily dissolved by the infant gastric juice. In cow's milk the casein is precipitated in lumps, which gather together in tough curds, and, even though diluted or rendered alkaline, it is badly curdled by the action of the gastric juice.

In quantity an infantile meal is supposed to consist of about two ounces. As suggested in treating of the functions of the stomach, it is believed the quantity administered at each nursing should fall short of the capacity of that organ. The young babe will require nourishment at intervals of about two or two and a half hours during the first few weeks of its life, from early morning until late at night, and one or two nursings through the night. It should be allowed to nurse from twenty to thirty minutes, to nurse a while and rest a while, until its meal time is completely covered. A little care in starting the baby off in life, with regular nursing hours, with reasonable limit as to time and quantity, will be much better for its health, and will at the same time make its care much more of a pleasure and less of a burden to its mother. It is better to feed by the clock than to be governed simply by baby's uneasiness, which is often not at all an evidence of hunger. It is quite surprising how simple the care of a child may be, if regularity as to feeding, sleeping, and defecation be insisted upon during the earlier part of its life.

After a few weeks the interval between feedings may be lengthened, and the child may be allowed a longer nursing séance. By the third or fourth month nursing once in

three hours will be often enough to feed it, and by the end of the sixth month from three to four hours will be a proper interval between meals. Of course, there will be variability to suit individual cases; but frequent feeding and overfeedings are far more prolific of cases of distress and disease in infant life than is generally recognized. Mixed feeding may be begun with perfectly healthy children about the sixth month. They are by this time able to digest cow's milk, if they are well and the season be favorable. Should the hot season be coming on, or already on, it will be very much safer to depend wholly on the mother's milk than to attempt a mixed diet. By the eighth month it is usually safe to allow children the simpler articles from the table, if their digestive organs are in good condition and the teething process be well advanced.

Animal milks.—Next to human milk, that of other mammalia is most likely to meet the requirements of the nursing infant. Clinically, I have found jennet's milk to be better than any other for the first few weeks of infant life. It is not always easily obtainable; but the jennet is so gentle and easy going, and her diet is so simple, that her milk has been found to be as non-irritating and easy of digestion and assimilation as any that can be employed.

For some reason sheep's milk has not been called into the requisition that might be expected. It is so easy to obtain this animal and to care for it, and its milk is so comparatively free from casein, that it would seem that it ought to be almost the ideal artificial food. I have known of instances where a ewe has served most excellent purposes in the country, and confess to the conviction that the milk of this animal ought to be used more than it is.

Goat's milk is highly recommended by some authors. I have had but little experience with it, but in sturdy children, several months old, have found it irritating, it being too rich in casein, especially. If the milk of the goat is relied upon, its food should be selected for it.

It ought to go without saying that in choosing any animal for nursing purposes it should be a young animal, perfectly docile and thoroughly healthy. No chances should be taken of the communication of tubercular or other disease through this means.

Cow's milk is used more extensively and generally than the milk of all other animals combined, and the raising of infants upon bovine milk is deserving of rather more careful consideration than is usually given to the subject.

As has already been noted, the cardinal difference between cow's milk and human milk lies in the quantity of casein. This element is closely akin to albumen in its nature, and when present in a liquid, in small quantity, its coagulation takes place simply in the form of a fine cloud or coalescence, while if the quantity be larger it coagulates in curds. There is also some difference in the character of the casein present in the two kinds of milk, and it is, beyond question, the indigestibility of the casein of bovine milk that interferes with its perfect adaptability to the necessities of infant feeding. Careful analysis of cow's milk shows that it contains a larger amount of ash, less of sugar, a much greater amount of casein, and about the same proportions of fat and water as are found to belong to human milk. Some authors have undertaken to overcome the objection arising from the presence of the greater quantity of casein in cow's milk by giving it diluted; but it must be perfectly clear to the understanding that, no matter how much water be added to milk, the quantity of casein in proportion to the quantity of solids remains the same. As a matter of fact, water has no influence whatever upon the bovine casein. It does not make it more soluble nor less coagulable. The only advantage that can arise from diluting the milk lies in the fact that a lesser quantity of crude milk is taken, and that the total amount of solids in proportion to the entire amount of food is decreased, the relative proportions of the solid elements

remaining the same. The child simply gets more water and less of the substantial elements of milk. There is no doubt that it is better that the quantity of solids should be decreased when they are not of a character to be taken care of by the system. Ninety-five per cent. of water and five per cent. of solids, if the latter be difficult of digestion; but except for this advantage, nothing is to be gained by diluting cow's milk. Some authors prefer to prescribe the pure article, undiluted; but it is plain that with a given quantity of straight milk there will be more indigestible substance, and consequently more of irritation and disturbance of the digestive organs than if this quantity be reduced one half by adding plain water to supply the difference. The whole object to be obtained, in case cow's milk is to be used, is to try to make the distribution of solids as nearly as possible like unto that of the mother's milk.

According to Meigs, the best preparation of cow's milk is one the basis of which is cream. He holds that the first essential is to render the milk as alkaline as human milk is. His next step is to dilute with water, so as to get the quantity of casein reduced to about what it would be in maternal milk. Then the fat and sugar are increased as necessary by the addition of cream and sugar of milk. The method Meigs recommends in the preparation of this food is one which I have followed for a good many years, and which I have found to be very satisfactory indeed. To one pint of sterilized water $17\frac{3}{4}$ drams of pure commercial sugar of milk are added and dissolved. This sugar water must be kept in a cool place and not allowed to sour. When feeding time arrives two tablespoonfuls of cream, one of milk, two of lime-water, and three of the milk-sugar water are mixed, and as soon as this mixture has been warmed to proper temperature, it may be poured into the bottle and the food is ready for use. In the earlier weeks of its life the infant should be given this food in exactly

the quantity and frequency belonging to the natural feeding. Later the quantity of ingredients named—cream, milk, lime-water, and sugar-water—may be doubled, and the quantity subsequently increased as the necessities of the child demand.

It is highly important that milk-sugar be used instead of cane or grape sugar. It is not necessary to enter into the chemistry of the different sugars in this connection, but it suffices to proclaim with emphasis the significant fact that the differences are so very great, and the difference in their effect upon the infantile system so positive, that table sugars should never be used in the preparation of artificial food.

Cow's milk varies so much that it is difficult to properly estimate its value as a food for nursing infants. It is a well-known domestic fact that milk possesses varying degrees of "richness." The milk of some cows is pale, bluish, and almost altogether free from butter-making elements, while milk from other cattle, the Alderney and Jersey especially, is so plentifully supplied with fat and oil as to be rich in butter-making possibilities. The quantity of casein differs, also, and perhaps the most serious mistake made in attempting to bring up infants on cow's milk is in selecting milk of butter-making cattle. In the absence of any better test the sight, taste, and olfaction of the physician or mother should be brought into requisition in choosing milk to be fed the baby. It should be as near like the maternal milk as possible in color, odor, and taste, and in order to secure this degree of resemblance the bluest, thinnest, and poorest of healthy cow's milk that can be obtained should be employed; and even this will often be found to be richer and heavier in solids than the mother's milk. If cow's milk is chosen it should be as fresh as possible. In cities it is difficult to get it absolutely fresh, and it will be found to be better to resort to other foods than to accept the heated, churned, jolted, mixed milk of the street milk

vendor. If a cow is being kept, or if a neighbor's cow is being called upon, care should be exercised that its food be pure and wholesome, and absolutely free from swill and brewery refuse. It should be given the purest of water, and its stall should be kept perfectly clean. The animal should not be allowed to be fretted or worried from any cause, and its calf should correspond as nearly as possible in age with the child who is depending upon its milk for sustenance. The more quiet and docile the animal the better for the child. If milk is to be given undiluted and unprepared, it should be obtained fresh several times a day in quantities to suit the child's necessities. If the Meigs' method is to be pursued, this is not only not necessary, but will not answer, since it is essential to use cream in preparing the food. It should be borne in mind that the food of the cow supplying milk should be well salted, and less firm coagula will form in the child's stomach if a little pinch of table salt be added to its meal.

Peptonized milk.—Within the last few years efforts have been directed toward the discovery of some process whereby the indigestibility of the curd of cow's milk may be overcome outside of the stomach, and, as a result, we have the process known as peptonizing, by which the casein is converted into soluble peptones, just as the albuminoids of beef are converted into peptones in the process resulting in the manufacture of beef peptonoids. This process is accomplished by the addition of peptonizing powders, and that it secures at least the partial digestion of the casein is demonstrable beyond question; but because of the fact that a peculiarly bitter flavor is imparted to milk thus prepared, it is often rendered unsuitable to infantile uses. In older children in continued fevers, and in many of the diseases of adult life, peptonized milk is a most excellent article of diet, but, unfortunately, it is very distasteful to young children, and furthermore, I am sure I have witnessed more than one case of diarrheal disease as a result

of its use in early life. It is almost impossible to so flavor peptonized milk as to make it acceptable to the infant taste. Again, it has been argued, and with reason, that the use of the peptonizing powders results in less active stomachs, fermentation, and consequent greater debility of that organ. To peptonize milk, it should be diluted, and an alkali and pancreatic ferments be added, and the mixture boiled, in quantities sufficient to last for twenty-four hours. There are a good many peptonizing powders on the market, some of which are very reliable, especially Fairchild Brothers & Foster's, rendering the preparation of this form of food very simple.

Condensed milk.—Condensed milk has been very extensively used as a baby food. By this is not meant milk as condensed by dairies and delivered in jars and pots for daily use, but the condensed milk of canneries, as the Eagle brand, Anglo-Swiss brand, and others; and, in spite of the fact that it is known to contain large quantities of cane sugar, many children thrive upon it. With some children it does not agree, the sugar causing an acid condition of the system and diarrhea. The especial complaint I have to make against it is its remarkably free action upon the kidneys, polyuria being a not infrequent attendant upon its use. But this is simply an annoyance, and should not be allowed to weigh if the food otherwise agrees. Condensed milk is always convenient, and, if properly kept, is not likely to sour. It contains much less fat than fresh cow's milk, and its casein is much slower to coagulate, not being immediately precipitated in considerable masses. It will often be found a satisfactory substitute for cow's milk, and serves a most excellent purpose when the stomach is disordered, and vomiting is present as a common condition.

Should condensed milk be employed it should be obtained fresh, and when once a can is opened it should be kept in a cool place and covered. For this purpose an inverted glass vessel should be placed over the can in

water to exclude the air and dust and dirt. The milk should be pearl grey or white in color, never yellow. A common mistake in the use of this food is its excessive use. It should be borne in mind in preparing it that a very small quantity answers the purpose, the best domestic test being a near approach to the mother's milk in color, density, taste, and odor. The common instruction is to prepare this milk in proportion to a teaspoonful of it to two tablespoonfuls of water. In my experience this is altogether too great a proportion of milk. For babies from a few days to a few weeks old a small teaspoonful to a quarter of a pint of water will be sufficient. As the child grows older the quantity should be increased. In the proportion first named the amount of sugar in comparison with human milk is about the same. There is less of fat and a slight deficiency in casein, so that the proportions of one part to eighteen of water would seem to be about right; yet, clinically, I have found young children to do much better when the relative quantity of water is considerably increased. The chief fault of the stronger preparation is diarrhea from the cane sugar.

Condensed milk should always be prepared in cool water. Hot water renders it of syrupy consistency. It should be prepared in water that has been boiled and subsequently cooled, and if necessary to warm it, this may be done by placing it under the pillow for night use, and by standing it for an instant in a vessel of water just before feeding in daytime. I am sure that one of the secrets of success in its use among poor people is their failure to keep it warm.

Proprietary foods.—Among the various proprietary preparations that are now manufactured, that simulate more or less closely the maternal food, the peptogenic milk powder of Fairchild Brothers & Foster is one of the best I have used, and in some instances serves an excellent purpose. This powder is added in the proportion of one large measureful—the measure going with the powder in bulk—

to one-half pint of water, one-half pint of milk, and four tablespoonfuls of cream. The mixture is brought to boiling point, with constant stirring, for a minute or two, and is thus quickly prepared for use. It is sterile, slightly alkaline, and chemically somewhat allied to mother's milk.

A great many chemists have been engaged, in recent years, in attempts to prepare artificial food for infant and invalid use, and some, no doubt, with the sole idea of accumulating more than their share of this world's goods from their sale, while others, it is believed, are prompted by an honest desire to assist in solving the difficult problem of successful artificial feeding. The author is not one of those who stand ready to condemn all the various proprietary foods as absolutely worthless. Grant, even, that those engaged in their manufacture are wholly mercenary, it must yet appear that success cannot very long attend efforts in this direction unless the product possesses some merit; for the severest denunciation of a jealous profession and sorrowful parents will surely follow upon the utter failure of a prescribed food to fulfill its requirements. As a matter of fact, I have had some most excellent results with a number of commercial baby foods. Especially satisfactory has been my experience with Mellin's Food. Nestle's Milk Food has served me well in the early days of infancy, in tiding over sore nipples or broken breasts for a short while only. The Fairchild food, previously mentioned, is one of the best on the market. Lactated foods and Horlick's Malted Milk are among the good preparations in individual cases. Mellin's Food meets with the requirements of baby life as well as any food before the profession. This preparation is a dry powder, and consists of soluble carbohydrates, 69.38; albuminoids, 9.75; cellulose, gum, etc., 3.18; salts, 4.37; the soluble carbohydrates are dextrin, 35.92, and maltose, 33.46. It is free from starch and cane sugar, and is of the class of infant foods known as Liebig foods, and doubtless the best exponent

of this class. It is prepared with diluted fresh cow's milk. I have prescribed this food for nearly twenty years, not often with infants under three months of age, but very largely for infants above this age, and have found it a most reliable baby food; its use is a great deal less liable to be attended by derangement of the bowels than is the use of pure cow's milk alone. I have obtained the best results by preparing it with fresh cow's milk which has been brought nearly to the boiling point (pasteurized milk).

Lactose.—The carbohydrate element of adult food, which is chiefly made up of starches and the different varieties of sugar, and constitutes the largest part of most vegetables and fruits, is represented in milk by lactose (milk-sugar) only. Its function is to supply heat by oxygenation, and in chemical properties it is isomeric with sucrose or cane sugar. In infant life it is necessary that a greater degree of heat be maintained than in adult life, yet it is not possible to secure this by exercise, and consequently it must come from food.

Lactose is relatively the largest constituent of human milk, and by virtue of the presence of certain bacteria, which act as ferments, a portion of it is decomposed, and the lactic acid results. The formal change comes about from the separation of a molecule of lactose into four molecules of lactic acid by the addition of one of water; lactic acid in excess will, upon being absorbed into the blood, dissolve out the phosphates already fixed in the body, especially in the bones. In addition to this fermentation in milk, there is a second, accompanied by the development of an alkaline reaction, by which the curd (casein) becomes dissolved and converted into soluble peptones. Scientific investigators assert that this process is carried on by the presence of certain bacteria, of which there are ten different varieties, and from the changes made two simple ferments are formed, one going like rennet to curdle the milk, and the other possessing a pep-

tonizing action. During the process resulting in the manufacture of this element, there are produced other chemical constituents, known as leucin, tyrosin, ammonia, and butyric acid. The fermentation belonging to this process is named from the latter acid, and is due generally to the long continued presence of curds of milk or starch in the intestinal tract. It is the result of a putrefactive process and not a part of normal digestion.

It has been shown that starch is the chief carbohydrate of adult food. It is digested by the action of the ptyaline of the saliva and the pancreatic juice, which are not secreted to any great extent in infant life; consequently, the infant cannot handle carbohydrates in this form. By the action of these fluids, starch is converted into maltose and dextrin. Therefore, because of these deficiencies, efforts at the preparation of baby foods should be largely directed toward the conversion of starch into dextrin and maltose before it is given to the infant.

It seems to me that it is needless for the medical profession to decry the value of some of the baby foods at present on the market. What we know of the digestive function has been largely learned through chemistry, and this science has attained such a satisfactory degree of perfection at this time that the chemist is able to equal, and even excel, the efforts of nature in many directions. He cannot, perhaps, outdo nature at her best; but when the vital forces are disturbed, and children are sick and their foods are disagreeing with them, when we are unable to meet the requirements of individual cases, it is far better to avail ourselves by careful study of the knowledge that chemistry gives, and to apply that knowledge to our little patients, than to blindly rely upon the empiricism of domestic feeding. The chemistry of foods should be made a separate study in medical colleges, and the general practitioner should be fully acquainted with the chemical constituents and relative values of all the natural and arti-

ficial foods he may have to choose from in individual cases of illness, and not until this knowledge is availed of by the profession will the feeding of infants be more than empiricism.

Beef foods.—As a rule, beef foods are not permissible in young subjects. They are rich in salts and fats, and feeble in sugar, and too strong and irritating in their chemical properties. Furthermore, intestinal parasites, especially the tenia, are introduced into the infant system in beef juices. In the later months of the nursing period, if the child is not properly nourished on milk or the selected artificial food, the use of rare beef gravy, or a weak dilution of Valentine's beef juice, or Bovinine is permissible. Sometimes children of several months of age will thrive nicely by chewing or sucking chunks of rare, tough beef, from which they get the juice and not the fiber, or on equal parts of the Bovinine and milk. I have, however, traced so many cases of saginata to the use of rare beef juice in infant life that I am slow to recommend it.

Domestic foods.—There are a great many domestic preparations that are valuable as baby foods—as, for instance, the old-fashioned flour ball, which is made by pressing a ball of flour in two or three thicknesses of cheesecloth, and boiling it two or three hours, until it is hard and dry. This is crumbled and dissolved in freshly boiled water, to which a little cream is added, when it is ready for use. Barley water, arrowroot gruel, rice water, whipped egg, parched rice mush, toast coffee water, and numerous other preparations have been found useful in individual instances. Their use is largely empiric and clinical. The best of all these, in my judgment, especially if there is any tendency to diarrhea, is barley water. If the habit is one of constipation, and if eczema is not already present, oatmeal water, mixed with an equal part of milk, a little cream being added, makes a good baby food.

Barley water is best prepared by cracking or grinding a

teaspoonful of selected pearl barley in a coffee mill, putting in one-half pint of water, boiling and adding its bulk of pasteurized milk or pure water. It may be desirable in especial cases to add a few drops of Bovinine to this preparation. Another method of preparing barley is to take two tablespoonfuls of pearl barley to four teacups of cold water. Boil it until it is reduced one-half, when it is strained, and to this is added a pinch of salt and sugar to flavor. To this boiled water is added sterilized or pasteurized milk, in the proportion of one-third to two-thirds of the barley water for young babies, the proportion of milk being increased with the age of the child. Cream is highly recommended by some as the ideal food for young babies, only cream diluted by pure water to suit the age of the child, and sweetened to taste, being used. Egg albumen is another article of diet that has been found beneficial. The white of an egg is mixed with one-half pint of water, to which is added a little salt. This is kept perfectly cool, and given in teaspoonful doses every hour or two, as may be necessary. If oatmeal is selected in place of the barley it should be prepared in about the same way, the water from both these cereals being thoroughly strained, in order that there may be no husks to irritate the intestinal canal.

Sterilization.—Within recent years it has come to be the practice, and a wise one, to render cow's milk sterile when it is used as an article of food for children or for sick adults. During the milking process, as the milk is allowed to stand in open vessels, and as it is being prepared for use, it is very subject to contamination by the introduction of poisonous particles from the atmosphere or germs of disease from individuals handling it, from vessels in which it may be kept, and in various other ways. Milk is one of the very best media for the cultivation of noxious germs. It is presumed that while it is still in the udder of the cow it is aseptic, but, as has been shown, the fermenta-

tion of its curd is a bacterial process, at least ten different forms of bacteria having been seen microscopically to be engaged in the process of its digestion. It is readily understood, therefore, that cow's milk may be a prolific cause of disease in young children, whose digestive ferments are not yet strong enough to quickly digest its curd, and whose systems are not sufficiently resistant to preserve them from bacterial invasion.

Sterilization is accomplished by means of heat, and instrument makers have devised various ingenious apparatus for the purpose of reducing the process to an art and making it easy of accomplishment. Arnold's is one of the best. The sterilization process wholly consists in hermetically sealing the milk while scalding hot. If sterilizing is properly done, milk will remain sweet several days, a fact of no small importance in tiding through the night and in traveling. In Southern climates, especially, sterilization should generally be practiced where milk is used as a baby food. In the absence of a sterilizing apparatus milk may be rendered sterile by being carefully prepared in any perfectly clean vessel, the essentials of the process being the destruction of bacteria present in the milk by bringing it to the proper heat, and then sealing it tightly. The ordinary glass-stoppered flask does not answer the purpose; neither does sealing with ordinary cork, unless sealing wax or bees wax be immediately applied. The proper bottle is supplied with a perforated cork and glass stopper. Sterilization can be performed in the humblest home without anything in the way of apparatus other than the ordinary kitchen utensils and such a bottle.

It is not desirable to continue a child on sterilized milk very long at a time. While doubtless rendered free from noxious influences, which have been admitted during and after milking, yet the process also destroys the native bacteria of the milk that bring about the fermentation and solution of its curd; and because of this fact it is rendered

somewhat difficult of digestion, and not suited to continued use. If it is desired to continue it for a considerable period of time, it is better to peptonize it by the addition of a proper proportion of peptonized powder while sterilizing. Vaughan and other recent observers now treat of many diarrheal diseases of infants as acute milk infection, due to toxicogenic bacteria. They do not hold that there is a specific micro-organism, as in tuberculosis, but that only one of the large class of germs may be present and produce gastro-intestinal disturbances peculiar to the diarrheal diseases. Vaughan treats of bacteria as the most common and deadly cause of infantile diarrhea, and is so emphatic as to italicize his injunctions that a nursing infant suffering from diarrhea should not be given a drop of milk during its illness. The microscope and culture tube have certainly made many problems very plain, and, with the information before us, it is doubtful if we are justified in administering raw milk to very young children at any time, nor in giving it, under any circumstances, unless it shall have been rendered innocuous; and certainly, when intestinal disorders shall have set in, milk should be religiously interdicted.

In order to render milk sterile, it is not necessary that it shall have been boiled. The boiling of milk expels about three per cent. of its gases and changes its odor and taste decidedly. Its albumen is coagulated by heat, and a certain amount of its fat is held in the scum that forms upon it. It is no longer contended that boiling renders milk very much more difficult to digest than simple scalding; yet it is not so palatable, and there is no doubt that its curd coagulates in larger masses than if the milk is simply "scalded," as the process of pasteurization is commonly called. It must be remembered, however, that the chief thought in relation to this process is not more to destroy the bacteria already in the milk than to prevent their further development, and by so closing it in sealed flasks to

prevent the occurrence of invasion from without; so that it is not enough to simply scald the milk in an open vessel. Sterilization must be done with precision, and the immediate sealing of the vessels in which it is to be retained must be performed perfectly if the desired object is to be attained.

As has already been stated, sterilized milk is a very unsatisfactory diet when used for any considerable length of time. It does not seem to meet the requirements of a perfect food. Certain chemical changes are shown to take place in milk when heated from 167° to 212° F., and the higher the temperature the greater the change. The ferment that liquidates starch is destroyed and coagulated by excessive heat, and a part of the lacto-albumen is coagulated. The casein is rendered less coagulable by rennet, and is more slowly and imperfectly digested by pepsin and pancreatin under the influence of extreme heat. Milk germs are also destroyed, so that in many cases the sterilization of milk so completely changes it as to render it unsuitable for use as food over a considerable length of time. It is for these reasons that it is better not to boil milk. Pasteurization below the boiling point accomplishes about the same results as are accomplished by boiling, and the greater the degree of heat applied to the milk the less satisfactory it is as an infant food.

Pasteurisation.—Pasteurization of milk accomplishes the destruction of such forms of micro-organic life as are likely to be harmful, and yet the milk is not heated to that degree under this method that results in its being rendered unfit for food. Its temperature is not carried higher than from 131° to 176° , the milk being cooled rapidly after having been heated. The bacillus is destroyed at 167° for ten minutes, and 158° for fifteen minutes, and at 155° for thirty minutes. A simple method of preparing food according to the plan followed by Pasteur is as follows: A pail is filled with water to the height of a groove marking its

proper depth, with supports on the inside for the receptacle of bottles of milk. This receptacle consists of a series of hollow cylinders, made of zinc, bound together, and fitted in a pail so that the top of the cylinder is at almost a level of the groove, and put on the stove, the water being brought to a boil. The bottles to be used are filled with milk and stoppered with cotton, and placed in the cylinder. Sufficient water is poured into each cylinder to cover the body of the bottle, for the purpose of communicating the heat to the milk. When the water in the pail is brought to a boil it is set to one side on a table, or other non-conductor substance, and the receptacle containing the bottles of milk is placed within. The pail is then covered by its lid, and is allowed to stand with the zinc cylinder in the water for half an hour, when the milk is removed and placed immediately in a refrigerator, where it may be kept without spoiling for several days. Milk thus treated is as safe as boiled or completely sterilized milk, and the infant will not tire of it as of milk subjected to a greater degree of heat.

Examination of raw milk in the bacterial laboratory shows as high as from 8000 to 230,000 bacteria to each cubic centimeter, while after pasteurization usually none are found. This treatment of milk destroys not only tubercular bacilli, but the bacteria of typhoid fever, cholera, and pneumonia, and most of the milk germs, and does not injure the milk. It is claimed that milk held in tightly sealed bottles, boiled in a saturated solution of salt for half an hour, will keep perfect for a considerable length of time. This is probably due to the fact that it requires a higher temperature to boil salt water than fresh water; but the same objection obtains to subjecting milk to the degree necessary to its sterilization as is necessary in fresh water. Christopher of Chicago, in an important article, reaches the following conclusions:

1. In instituting artificial feeding, the alimentary canal

of the infant should first be put into normal condition, and during this period the food should, irrespective of its properties or value as a complete nutriment, be adapted to the condition of the alimentary canal.

2. The alimentary canal being in normal condition, the food used should be within the physiological capabilities of the baby.

3. The food adopted should be pure, and, if the conditions will permit, it should be sterilized.

4. The food intended for the complete nourishment of the infant should contain the necessary proportions of proteids, carbohydrates, fats, and salts, and the composition of human milk should be the guide in determining these proportions.

5. The anti-scorbutic element should usually be present. In its absence the child should be carefully watched and this element supplied when found necessary.

6. Sterilized milk and foods made up of dried milk solids are deficient in the anti-scorbutic element.

7. Water is an essential ingredient of the food supply of the infant, and should be administered freely.

8. Foods which are deficient in one or more of the necessary ingredients lead to the development of various forms of innutrition, particularly rickets and scurvy.

9. The infant should be fed at regular intervals, and not overfed.

10. The best artificial food for a healthy infant is pure milk from healthy cows, properly diluted and sweetened and sterilized, if the conditions of nutrition permit.

Conclusions.—As has been stated, the newly born infant will usually lose weight for the first week, or will no more than hold its own, at any rate; but if its nourishment is such as to properly support it, it should gain 5 or 6 ounces per week during the first few weeks of its life, the average weight at the end of the second month being about 10 pounds, allowing 8 pounds as the weight at the time of

birth. From this time on it will grow a little more slowly, perhaps, and 4 or 5 ounces in gain per week will be made, so that at the end of the fourth month Ashby and Wright quote the infant weight at 13 pounds. If it is thriving nicely, and is neither unusually well nourished nor poorly nourished, by the end of the sixth month the infant will have doubled its weight, and will tip the scales at 16 pounds. During the last six months of the first year the gain is not so rapid as in the earlier months, and by the end of the first 12 months the average weight will be about 22 pounds. There is no more certain way to diagnose malnutrition, or failure on the part of its food to properly nourish the young infant, than a steady loss in weight. The natural course in infant life is growth, and rapid growth during the earlier months. Whenever this is not the case there is something wrong either with the child itself or with its food, and the physician will do well, when his attention is called to the fact that the baby is not thriving, to institute a series of careful weighings, rather than to trust alone to the physical evidences of possible malnutrition.

The problem of artificial feeding is one of the most difficult to solve in general medical practice. In the South and Southwest, in which section I practiced for more than fifteen years, the long, tedious summers, with their debilitating influences upon the women of that section, make it necessary to resort to artificial feeding in a considerable proportion of cases. These enervating summers have their effect also upon young children, and if diarrheal diseases set in early in the summer, the interminable hot season makes the question of infant feeding one of deepest concern. While almost wholly exempt from the sudden, violent outbreaks of cholera infantum peculiar to more Northern sections, yet the total number of cases of cholera, presenting through the seven months of summer experience in Southern latitudes, is quite sufficient to give the

practitioner all the opportunity he may desire for careful observation and wide experimentation. The long continued heat has its effect also upon prepared goods, and not infrequently difficulty arises from this source. Altogether, the digestive disorders of young children have long been my *bête noire*, and in consequence I have tried to carefully study the question of infant feeding, with the result that no flimsy excuse for early weaning is ever allowed to weigh for one minute, nor do I permit of a mixed diet with very young children, especially if their disorders come on early in the season or during the hottest months of the summer. Even though the mother's milk may not be altogether satisfying, I am convinced that it is better to have the baby only partially nourished on its natural food, providing there is already no gastro-intestinal disorder, than to run the chances of disturbing the stomach and bowels in trying to more rapidly build it to its normal plumpness. And especially did I learn to fear cow's milk in that section of country. The effect of the heat upon the cattle, the poor quality of food they are apt to get during droughty seasons, and, if allowed to roam at large, the almost absolute certainty of their slaking their thirst with impure water from low creeks and drying pools, are quite sure to result in an impure quality of milk. Again, in the rural districts, it is often impossible to get ice; and as the water of most sections of the Southern States is not cold, as in the North, the farms are not possessed of the regulation spring house to insure the proper preservation of milk and butter; hence it is much more difficult to keep milk pure and sweet. When, therefore, it has not been thought possible to bring up a child on its mother's milk, it has been my custom to secure a wet nurse, if at all possible, if but to tide over the first three months of infant life; and next in order, I have learned to rely on baby foods, prepared under the theory of Liebig, and clinically proven to be correct—that it is the conversion of starch

into grape sugar that is necessary to the preparation of a safe and useful baby food.

When once diarrheal disease is on, it may be found necessary to suspend the regular nourishment, no matter what it may have been, for a day or two, relying almost wholly upon water, with perhaps a very small quantity of some other selected food, until the irritation shall have been allayed, when the necessary diet may be safely resumed. It is no more invariably necessary to make radical and permanent change of food when infantile illness is present than to do likewise with adults. The temporary suspension of what may be the cause of the illness will sometimes suffice to give the child a few days of rest, and it can then go on with its regular diet as before. I am quite sure serious mistakes are often made in frequently and radically changing the food of young babies.

MULTIPLE PREGNANCY.

BY

ALVAN L. WALTZ, M. D.

MRS. LENA B., aged twenty-eight years, became pregnant about the middle of June, 1894. I relate the case not only for the reason that she was delivered at term of twins, but for several unusual symptoms which occurred during the gestative state. I am a firm believer in the influence of the mind upon the pregnant woman and her offspring. A disturbed, harrassed, and ill-treated woman cannot, as a rule, give birth to a perfect child in all respects. It may be perfect physically and still be mentally depraved. At some time and in some way nature will have to pay the debt for "the late unpleasantness." So in this case the pregnancy was an unwelcome one, and many things were said and done which must have had a harmful influence. Her friends

and some physicians had told her that if she became pregnant she would surely die. My opinion of such friends and doctors is "that it were better that a millstone were hanged about their necks and that they were drowned in the depths of the sea." The first few months of her pregnancy were made miserable by these thoughts and direful forebodings, to which was soon added a general pruritus, which was so intense and persistent that she declared she could not live until labor would relieve her. Baths of all kinds and all temperatures were tried without lasting benefit. Ice cold water baths would relieve her for a while, so she could sleep for several hours, but the treatment was so harsh that she could not endure it, but for many nights she would sit near an open window with nothing on but a night dress, so as to be able to rest and possibly sleep. Medicines of all kinds were tried in all manner of potencies without benefit. From the third month she began to be unusually large, and the latter part of the eighth and the first of the ninth month she increased in size alarmingly fast, so that a week before she was confined she was a wonderful sight. Her abdomen was so hard and tense that it put me in mind of a pneumatic bicycle tire. The enlargement was so great that she could not lie down for fear of smothering. To this was added severe pleuritic pains, which made it extremely distressing to breathe with the little lung she could use. The case became so alarming that some thoughts were entertained of relieving her by inducing labor, when, on the evening of March 12, I was called to see her as she was having some pain, but before I could get away from my office the messenger returned, saying the waters had broken, and wanted me to come at once. I hastened to the bedside, and found the lady sitting on the bed and wonderfully relieved, I can assure you. She had filled a good-sized chamber pot and a large wash basin with amniotic fluid, besides saturating the bed and leaving a large pool on the floor. The nurse and friends declared that there

were four gallons in all, but I am inclined to think that there were not over three. I made a digital examination, and found the head presenting and well down. There being no pain, I made several calls and returned in an hour, and there still being no pains, I hastened away to get my other patients in a condition to leave for the night. I returned in about two hours and found labor pains coming on lightly and at long intervals, but steadily increasing in severity and shortened intervals, so that in several hours they were hard and protracted, but very little progress was made. The womb did not seem to contract with firmness, caused, I believe, by the over-distention from the excessive amount of amniotic fluid. The patient was lying on her back, and it seemed that but one-half of the power of the contractions were used (as I see it now) in gathering up the contents of the womb, while the other half was feebly used in its efforts at expulsion. After waiting nearly an hour with no perceptible progress, I began to despair. I finally ordered her, against her wishes, to turn on her left side, bringing the knees well up to her chin, and waited for a pain, and when it did come, she brought the head down so rapidly that I feared she would lacerate the perineum, and cautioned her to wait for another pain, which she did, when the child was delivered. It was very livid, and all efforts at resuscitation were unavailable. It was a well-formed boy, and weighed six pounds. The cord was cut and tied and the child handed to the nurse. I proceeded to deliver the placenta, which I could not reach digitally, grasping the fundus of the womb with the left hand, I sought to bring on a pain, and, to my astonishment, I found a wondrous large fundus. There was positive evidence either of another child, a large placenta, or a growth of some kind, or all. The whole history of the case, to me so peculiar, flashed through my mind, and I fancied all kinds of complications would assail my already exhausted patient. Digital examination revealed neither placenta nor child,

but a pain soon came to my relief, bringing down another child with normal head presentation, which was delivered with one pain. The child, a boy, was also dead, and weighed five pounds. I delivered a huge placenta with two cords, which filled an ordinary chamber pot to the brim. You can imagine that I looked with some concern at my patient to see whether there was anything left of her. Aside from feeling very weak she felt very good, and made a splendid recovery. She has never had a return of the itching, the pleuritic pains disappeared, as also did a sore throat which she had had for nearly a month. There are three questions that come to my mind in this case, neither of which I would undertake to answer at this time. They are:

1. What was the cause of the itching?
2. What was the cause of the excessive amount of amniotic fluid?
3. What was the cause of the death of the children?

WHICH SHOULDER SHOULD BE DELIVERED FIRST.

BY

WILLIAM C. RICHARDSON, M. D.

AT the solicitation of the distinguished chairman of the Bureau of Obstetrics, I have taken up for consideration this topic, which has recently been discussed in some of the journals.

Up to a few months ago, there was never any thought in my mind that this question was susceptible of debate by those well informed in obstetrics. It now appears, however, that there are a certain few who hold that the teachings of a large majority of the best-known writers on obstetrics are perhaps wrong.

This agitation is but an illustration of the old truism

that "there's no question but has two sides," and it will be my pleasure in the following discussion of the subject to show that it is almost invariably the posterior or perineal shoulder that is born first in unaided labors, and that in cases calling for manual assistance it is emphatically the one that must be delivered first.

At the last meeting of the Southern Association, one of the well-known surgeons in attendance stated in conversation that he had about one rupture in every three cases of delivery!

This was to me a most surprising statement, and I could scarcely account for it. However, later, he stated that it was his invariable custom to deliver the anterior or pubic shoulder first. This last statement of course explained the first, and clearly explained why he had such an appalling number of ruptures.

The best authorities on obstetrics, the world over, are almost all of the opinion that the posterior or perineal shoulder comes first; there are, nevertheless, one or two, notably Naegele of Germany and Parvin of America, who seem to hold otherwise, but even they are not positively clear on the question as to which shoulder should be delivered first, as evinced by the ambiguity of their writings.

Mark well the proposition: "Which shoulder should be delivered first?" as the word delivered implies manual or instrumental assistance.

Parvin says "Expulsive efforts continuing, the pubic shoulder passes out first,—it has the shortest distance to traverse, and it represents the occiput which was delivered first,—and the superior part of the trunk pivots upon the arm just below the shoulder, while the sacral shoulder sweeps the curve and follows the course of the distended perineum, the perineal pressure and the direction of the canal causing incurvation of the body upon its lateral plane; the sacral shoulder is finally delivered, and the

lateral curvature of the body is at an end. Just as the nape of the neck was fixed at the subpubic ligament in delivery of the head, so is the upper part of the pubic arm [shoulder? W. C. R.] situated in delivery of the superior portion of the trunk; delivery of the head was effected through extension, but that of the shoulders by flexion; the lateral incurvation of the body is simply the analogue of extension of the head."

This would indicate to me that it is his opinion that in natural unassisted labor the anterior shoulder is first to emerge, but that it remains, or rather the arm just below the shoulder, remains under the pubic arch, while the posterior shoulder and whole arm are really delivered first.

Naegele and a few followers hold that the anterior shoulder comes down first. None of these, however, appear to go to the extent of saying that the anterior shoulder and arm should be manually delivered first; they do say, though, that when the head has been born the anterior shoulder should be brought down and out under the symphysis pubis. They then go on to say that the head should be raised forward and upward, and if necessary, the index finger inserted under the axilla of the posterior shoulder and its delivery with the corresponding arm thus effected.

That this theory of Naegele is not of any great weight or value is indicated by the following quotation from Leishman, who, in discussing the mechanism of labor and the views of the illustrious Hodge on the subject, says: "With reference to the observations of Professor Hodge, it may be remarked that he, his celebrated predecessor, Dewees, and, we may add, the American obstetrical school generally, have long repudiated many of the doctrines of Naegele which are still taught."

Among the authors in my obstetrical library I find the following clear-cut expressions on the subject:

Baudelocque: "Aussitôt que la tête est sortie, la face

tourne un peu vers l'une ou l'autre cuisse de la femme ; une épaule paraît au-dessous du pubis, and l'autre au-devant du sacrum, pour se dégager au premier effort."

Translation : "As soon as the head is out, the face turns toward one or the other thigh of the woman, one shoulder appears beneath the pubis and the other in front of the sacrum to be disengaged at the first effort."

Cazeaux-Tarnier : "L'épaule antérieure ou sous-pubienne se montre la première à l'extérieure ; mais c'est en général l'épaule postérieure qui, parcourant la courbure périnéale, vient la première se détacher au devant de la commissure antérieure et l'autre se dégage ensuite."

Translation : "The anterior or subpubic shoulder shows first externally, but generally it is the posterior shoulder that following the curvature of the perineum first detaches itself in front of the anterior commissure and the other is then disengaged."

Schmidt-Kanzow : "Nun stellt sich die rechte Schulter unter den Schossbogen an, die linke tritt über den Mittelfleische hervor und dann wird auch die rechte Schulter unter den Schossbogen hervorgetrieben."

Translation : "Now the right shoulder comes under the arch of the pubis ; the left passes out over the perineum and then the right shoulder is expelled from under the arch of the pubis."

Bernard S. Schultze : "Es stemmt sich die rechte Schulter unter den Schambogen und die linke wird, wie vorher, die Vorderfläche des Kopfes über den Damm hervorgewälzt."

Translation : "The right shoulder rests under the symphysis pubis and the left, like the face, is pressed forth over the perineum."

Grandin and Jarman : "After coming head the arm, which is to the rear, is usually more easily liberated."

Jewett : "Delivery of the trunk ; lift the head well up toward the mother's abdomen and deliver the posterior shoulder first by lifting it over the perineum."

Hayt: "The shoulders rotate, so that their long diameter is in the antero-posterior diameter of the pelvic outlet, the anterior or right shoulder becomes fixed under the symphysis, and the left or posterior is born first."

Reynolds: "If both are accessible, that which is attached to the perineal arm should be selected, but if either hand can be drawn down by traction upon its wrist until the forearm and elbow sweep across the fourchette, the release of the corresponding shoulder is at once effected."

Playfair: "The two shoulders are soon expelled, the left shoulder generally the first, sweeping over the perineum in the same manner as the face. This is, however, not always the case, and they are often expelled simultaneously, or the right shoulder may come first."

Richardson: "The shoulders having rotated coincidentally with restitution of the head, are next expelled. The pubic shoulder having the shortest distance to travel, appears first at the vulva, and being pressed against the symphysis pubis, remains stationary until the sacral shoulder glides over the sacro-coccygeal perineal curve, and is generally born before the pubic."

Guernsey: "The right, or anterior shoulder is the first to appear in the fissure of the vulva, but the left or posterior shoulder is the first to be set free by means of the perineum retracting from it, and it is thus in reality born first."

King: "Shortly after the expulsion of the head, the shoulders having executed the motions above named, the right shoulder appears at the vulva and is fixed against the pubis, while the posterior or left shoulder traverses the perineal cavity in the same manner as the face in the delivery of the head, and after its disengagement at the anterior commissure of the perineum, the right or subpubic shoulder follows."

Landis: "If the posterior shoulder is made to keep in advance, a shorter diameter than the bis-acromial is per-

mitted to coincide with the antero-posterior diameter of the tube, and a smaller outline being presented, the perineum is less distended. This is true, whichever shoulder is in advance, but the posterior is usually more accessible to the finger and more easily drawn down. Also, if the posterior shoulder is first delivered, the sharp projection of the shoulder is made to pass over the perineum before the full bulk of the body becomes engaged with it, and is therefore less liable to make a rent in that structure, as so often happens."

Ramsbotham-Keating: "The pubic shoulder, having the shortest distance to travel, appears first at the vulva, and being pressed against the symphysis pubis, remains stationary until the sacral shoulder glides over the sacro-coccygeal curve, and is generally born before the pubic."

Leavitt: "In most cases the shoulders are expelled without aid. But, should there be delay, slight traction may be made on the head, while an assistant pressed with some force on the fundus uteri. When the movement of expulsion begins, the operator's hand should be placed at the posterior vulvar commissure, and the shoulder raised with some force, as a protection to the perineum. As the arm or elbow of that side passes, special protective efforts should be made."

Carpentier-Grandin, "Cyclopædia of Obstetrics and Gynecology": "The anterior shoulder, the right one, in the position O. L. A., takes its position below the symphysis at the vulva. It becomes fixed beneath the symphysis as the occiput did, and thus partly liberates itself; but in reality it is the posterior or left shoulder which, pushed by the uterine contraction, sweeps over the whole posterior pelvic wall, and is completely expelled before the other."

Marsden: "As the head is born, the shoulders are made to enter the superior strait, their long diameter corresponding with the transverse or oblique diameter of the brim of the pelvis. They descend through the cavity in a

manner similar to that we have described, and upon the same principle. Rotation brings the one under the arch of the pubis and turns the other into the hollow of the sacrum to traverse the inner surface of the perineum, and, usually, first to pass the outlet by gliding over the posterior commissure. . . . If the extrusion of the shoulders and the trunk do not soon follow that of the head, and especially if the womb, exhausted by the work already accomplished, seems unable to rally to complete its task, we should render such manual assistance as may be necessary to supply the deficiency of the natural powers. This is done most efficiently by hooking a finger in the axilla of the shoulder which has turned, or which will turn, toward the sacrum, and by gentle extractive force, drawing it downward in the axis of that part of the passage in which it is found, until it passes the posterior commissure, when the other will soon follow underneath the pubis."

I have only found one author, Meaddows, who says plainly and directly that the anterior shoulder is born first. There are quite a number of authors who hold that both shoulders are born simultaneously; others, as Meigs, Leishman, Chailly, Bedford, and Lusk, while silent or ambiguous on the question, all agree that the anterior shoulder presents at the vulva first, but in giving directions for delivery by manual assistance, they all state clearly and explicitly that the head should be held forward and upward, keeping it in line with the axis of the pelvis, and after this it must logically follow that the posterior shoulder is disengaged or delivered first.

When we consider the parturient canal, we find that it is a tube bent upon itself; the shorter or concave surface of which is anterior and the longer surface posterior. Any close-fitting body passing through a bent tube must of course follow the axis of that tube, which in the case of the parturient canal is a segment of a circle known as Carus' Curve.

It is axiomatic to say that any force which is brought to bear in aid of labor, either manual or instrumental, must be exercised in a line with the axis of the parturient canal. With this axiom conceded, as it must be by all, it seems that there can be no question about the matter of which shoulder to deliver first. Any attempt to deliver the anterior shoulder first would necessitate interfering with the force being exercised by Nature in a line with the axis of the canal, and would throw the posterior shoulder back against the perineal surface and almost certainly cause a rupture of that body.

The unanimity with which a large majority of authors speak on this subject is evidence that ought to be taken as conclusive. It seems to me in considering this matter that the few distinguished authorities who are silent on the subject have thought the matter so well defined as to be beyond consideration, and therefore have ignored the proposition entirely as not worth while to mention.

Professor Comstock has recently issued a circular calling attention to the fact that the science of obstetrics has been neglected in the mad craze for gynecological renown that seems to have taken possession of the profession.

The seeming lack of information on the subject which we are discussing is an emphatic illustration of the claim set forth. When those who practice delivery of the anterior shoulder first admit that they have one rupture in every three cases of delivery, it is clearly evident to me that we should call a halt on surgical and gynecological enthusiasm to take up for careful consideration the momentous questions connected with the mechanism of labor, and see that they are understood by the whole profession. This is not a question which affects the reputation and skill of the physician alone, but one which involves first of all the welfare and safety of parturient women, and it behooves us to say and do all we can for a clear understanding of the subject.

I have endeavored in this article to avoid as far as possible anything of a controversial character, as I feel that in these matters, when there are honest differences of opinion, they should be determined by acknowledged authorities, and there is no question but that the weight of authority, as well as the mathematical deduction from a consideration of the mechanism of labor, establishes clearly that the posterior shoulder should be delivered first.

APPLICATION OF THE FORCEPS.*

TRANSLATED BY

B. F. UNDERWOOD, M. D.

(Continued from p. 275.)

B. *Application Direct, Exceptional.*

[Summit at the inferior strait, rotation wrongly made—occipito-sacral position, complete flexion.]

THE flexed head has descended as far as the inferior strait, where it is ready to be expelled. Rotation has been completed, but in the wrong direction; the occiput is toward the sacro-coccygeal cavity; the forehead, the face, posterior to the pubes (fig. 18). The posterior fontanelle is at the tip of the coccyx before the retropulsion, the vertex at the inferior border of the symphysis, the sagittal suture marking the diameter, directly antero-posterior.

It is still backward and on the side, between the coccyx and the ischium, that there is room to introduce the hand and blade of the forceps, between the sacro-ischiatic ligament and each half of the occipital protuberance. Supposing it introduced into one of these posterior lateral spaces, the hand should here easily reach to, and feel the posterior border of the ear of the corresponding side; the mark of certainty.

* From the French of Professor Farabeuf and Dr. Varnier.

1. You know that it is necessary to take the head in length (fig. 19) close to the two ears, following the parietomalar line, the line dividing the parietal eminences which

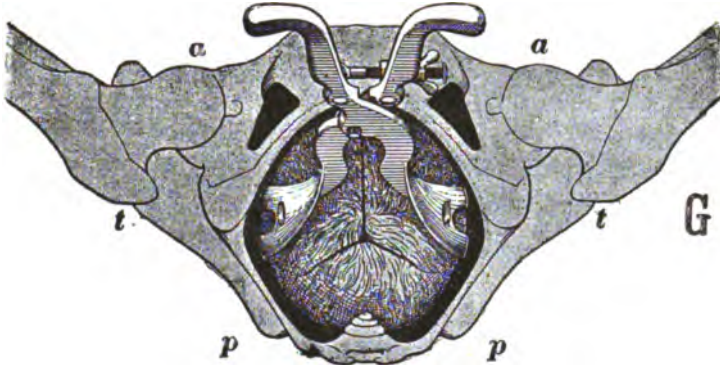


FIG. 18.

are outside of and bordering on the cheekbones, which are still in the uterine cavity.

The idea will not come to you here more than in the

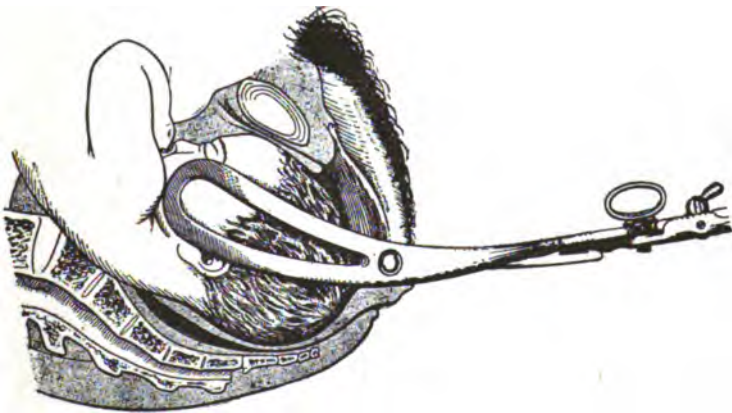


FIG. 19.

preceding case of placing the forceps wrong side outward, since the blade has a curve called the pelvic curve, intended to accommodate it, during its entrance and extraction, to

the curvature of the pelvi-pereneo-vulvar cavity. Therefore the concavity of the instrument will be turned toward the front of the fetus (fig. 18).

The head progresses, disengages, and becomes more and more flexed. Progression and flexion should be accomplished by developing the coccy-vulvar floor, distending the soft parts and following the strongly marked curve of the maternal cavity, without the blades of the forceps ceasing to be parallel to the axis of that line, inoffensive from one end to the other. The left blade of the forceps, when in position, will be placed directly to the left and the right blade directly to the right, as in the ordinary direct application upon an occipito-pubic presentation.

2. You know also that the left, pivoted, blade should be held and introduced by the left hand : the right, notched, blade by the right hand.

3. Finally, you know : that to make the articulation naturally, the first blade, the left, should be below the right and that the right should be introduced second and only above the first. Therefore, the left blade held in the left hand, to be beneath the right should be introduced first and placed with care directly to the left ; the handle being held low and immovable. The right branch, held in the right hand above the left blade will have the blade placed to the right, and the handle crossing the first will be articulated.

4. Without exception the free hand should precede the blade and guide it into the maternal parts ; the left blade has for its guide the right hand introduced as far as the uterine border, into the uterus, and even in this case, as far as the ear.

Thus, your point of departure is well established ; you will figure perfectly the summit and its position directly occipito-sacral ; you know when and where you should place each blade, which hand should guide it, which hand should hold the handle, how to make the crossing and

the articulation. It is a repetition of what has been learned for the occipito-pubic position; which will permit us to shorten somewhat the description.

When the forceps are articulated and applied (fig. 18) we will indicate the manner of using them to extract the head. The maneuvers will then present something special, different from that to be followed in the occipito-pubic position.

APPLICATION OF THE FORCEPS.

FIRST, PIVOTED BRANCH, THE LEFT BRANCH—GUIDED BY THE RIGHT HAND—HELD IN THE LEFT HAND—INTRODUCTION OF THE GUIDING HAND.

The four fingers of the first guiding hand, the right, oiled upon both surfaces, are introduced (the thumb outside) and with the palm of the hand penetrate as deeply as possible, until the commissure of the thumb arrests their progress. It is on the side and backward between the coccyx and the ischium in the region of the sacro-sciatic ligament that the guiding hand should be introduced. You know that it is possible and necessary to enter the cavity the length of the fingers, as far as the heads of the metacarpal bones.

Properly introduced, neither too low nor too high, the hand occupies the corresponding half of the sacro-sciatic cavity toward which its dorsal surface is turned obliquely, at the same time toward the ground and the side. The palmar surface embraces the parieto-occipital region, the little finger covering the crest of the occiput, the middle and ring fingers reaching and clearly feeling the ear.

The axis of the guiding hand, axis in which the blade is to be introduced, does not correspond to the line of good seizure, the parieto-malar line, which is lateral and lies close to the sides of the basin. The blade once introduced in the axis of the hands, that is to say, too low down or otherwise too much on the occiput, should, and may be,

on account of its thinness, brought of itself above the ear directly on the side, upon the parietal eminence and the cheek.

PRESENTATION, INTRODUCTION, AND PLACING OF THE
BLADE.

The left hand, grasping the handle of the left blade, presents it in the palm of the guiding hand. It is introduced in the same manner as in the occipito-pubic position, and is lowered obliquely toward the radial border of the right forearm. This movement directs the axis of the blade in the axis of the guiding hand. It should not be forced, but should follow the sensations and indications of the guiding hand. The introduction is sufficient for the time when the beak is at the level of the ends of the fingers, and in consequence has passed the occipital convexity. Then the fenestra will have entirely disappeared, and will be properly applied as regards the length of the cephalic oval; but, like the guiding hand, it is too far down—not enough on the side.

Bring it upon the parietal eminence and upon the cheek by the action of the hand upon the handle. This is raised sufficiently high, to the left of the median maternal plane, its hook directed upward and to the right of the mother. Simultaneously, lower the handle, for the beak should enter farther; carry it back toward the right thigh, for the parietal eminences resist the blade and throw it to the left. Finally, twist lightly and bring the handle which rises obliquely to point directly toward the right of the mother, which will cause the blade to glide forward over the ear in the manner of a mobile hook.

This complex, triple action forces the blade to pass the border of the guiding hand and insinuate itself alone beyond the index finger and the ear upon the line of good seizure altogether on the side.

This left blade rests upon the posterior commissure of

the vulva, and is confided to an assistant who, below the right thigh, holds it immovable, and to the right, near to the median line, and maintains the transverse direction of the hook.

SECOND BRANCH, RIGHT, NOTCHED BRANCH—GUIDED BY
THE LEFT HAND—HELD BY RIGHT HAND.

INTRODUCTION OF THE GUIDING HAND.

The four fingers of the second guiding hand, the left, are introduced as far as the heads of the metacarpal bones in a similar manner to that of the right hand, until arrested by the commissure of the thumb.

The cubital border glides upon the pedicle of the first placed branch. It is still upon the side and behind between the coccyx and the right ischium, in the region of the sacro-sciatic ligament, which the guiding hand should penetrate.

Properly introduced at the posterior extremity of the oblique pelvic diameter, the hand occupies the corresponding portion of the sacro-sciatic cavity toward which its dorsal surface is obliquely turned at once toward the ground and on the side. Its palmar surface embraces the parieto-occipital region, the little finger upon the crest of the occiput, the middle and ring fingers rising over the convexity of the occiput; the index finger, which has been able to feel the uterine orifice, should now reach the ear. If the two guiding hands could be introduced at the same time they would be perfectly symmetrical. For the second as for the first, the axis which is followed by the blade in its introduction does not correspond to the line of good seizure, the parieto-malar line which is lateral and closely applied to the pelvic. The blade once introduced in the axis of the hand, that is to say, toward the ground and otherwise too much on the occiput, should, and may be, on account of its thinness, brought of itself above the ear, directly upon the side, that is upon parietal eminence and the cheek.

A COMBINED METHOD FOR THE DELIVERY OF THE PLACENTA.

BY

THOMAS LOWE, M. D.

AS members of one of the most noble of all professions, with our qualifications and experience constituting our capital stock in trade, and our work involving a subject of no less importance than the guardianship of the lives of our fellow beings, it becomes us as a solemn duty to be not idle. To weigh well the experience of others and appropriate that which we can use to advantage for the benefit of those depending upon us for assistance and counsel. Nor should we be content to continue exclusively in the oft-trodden paths of others, but should endeavor by our own efforts where possible to mark out new and untrodden paths in the yet undiscovered forests of medical science, and by consultation and investigation with our medical brethren, seek to adopt those principles and methods which show promise of resulting in the greatest good to humanity. Many physicians of experience are employing methods and devices in their practice, worked out by themselves, unknown to others, which to them seem too trifling to submit to the examination and criticism of the profession, and yet they would be loth to get along without them themselves. These little things and the tact to use them properly is in large degree what marks the difference between the successful and the unsuccessful physician. The subject which I propose to present to you to-day has been so often discussed by men of eminence in the profession that it seems almost like presumption on my part to attempt to offer anything valuable before this intelligent body that has not already become familiar to you. But what I shall have to

say upon this subject is not intended as entirely new, but in advocacy of a combination of the old and tried, supplemented with a simple device which has rendered the operation for the removal of the placenta one of very little trouble, indeed very successful to myself and satisfactory to my patients. In brief my method is as follows: After the expulsion of the child it is my custom to wait from five to ten minutes before tying the cord; or, in other words, until respiration has been thoroughly established, except where conditions arise on the part of the mother making it necessary to complete this process earlier. After the cord is tied and the child is handed to the nurse, my next care is to look after the placenta. I do not, however, make an attempt at once to extract it, but after waiting a few minutes longer, say five or ten minutes, I make compression over the uterus to determine whether or not contractions have begun, which can easily be determined by the presence of the so-called "cannon ball" in that locality. If contractions have already taken place, I at once proceed to the delivery of the afterbirth; but if not, contractions are encouraged by the kneading or grasping of the uterus through the abdominal walls. After contraction has been assured, I instruct the patient to place her own right hand over the uterus, kneading the organ and pressing downward after the method of Credé. I then grasp the cord with my left hand, and, holding it tense, I pass the index finger of my right hand, or, if necessary, two fingers, guided by the cord, into the vagina, and usually meet the placenta at the cervix. In this case the fingers are swept around the most pendent portion of it, which is gently pressed from side to side, loosening it and guiding its descent. The mother is now asked to press slightly more upon the uterus with her hand, the cord is made a little more tense, and the placenta comes away with the greatest ease. If the placenta is found to be yet very high in the uterus and no indications for haste present themselves, it is often better to wait a few

minutes and then repeat the process, which is very rarely unsuccessful.

In justice to this method and by way of comment, I wish to say that it is not a new method with me, as I have used it exclusively in my obstetric practice for three or four years, averaging from one to three cases per week during that time. I was first led to adopt this method perhaps by my curiosity to know the location of the placenta in the parturient canal during the process of its delivery. In cases that were at all persistent I found that delivery could be very much facilitated by the use of three hands instead of two, and as I unfortunately possessed but two, I set about to improvise a third. When I pressed upon the uterus with my left hand and made the cord tense with my right, I was at a loss to know just what progress in many cases the placenta was making; and again I lacked the great benefit derived from the loosening process mentioned above. If my left hand was used over the uterus and my right forefinger or fingers within the vagina, I lacked the advantage gained by the use of the cord as a guide in reaching the placenta, and also the assistance in facilitating its descent derived from traction. Again, if my left hand was utilized in the care of the cord, and my right in guiding the placenta as above indicated, I would have no hand at liberty to make compression over the uterus, which I believe is recognized as a very essential procedure. So you see that in any one of the three conditions mentioned, another hand could be used to great advantage. This hand can be supplied very efficiently and very satisfactorily by the patient herself, as has been demonstrated in hundreds of cases in my own practice. Another advantage gained by allowing the mother herself to use compression, is the fact that she is not apt to press so hard or in such a manner as to injure herself, as the accoucheur is sometimes apt to do in his great desire to express the placenta quickly. It also offers a very valuable aid in keeping the uterus well in hand, enabling the

operator to use both hands to the best advantage, the left in making traction on the cord, and the right in loosening the most pendent portion of the placenta, in cases where the least difficulty in extraction is encountered. I believe by this method I am frequently saved the necessity of introducing my whole hand into the uterus for the separation of an adherent placenta. In fact, this latter procedure has not been found necessary in my practice but once in the past three years.

PREGNANCY THE CAUSE OF CHOREA AND MANIA.

BY

ELLEN L. KEITH, M. D.

Assistant Physician of the Westborough Insane Hospital.

IN considering the subject of chorea occurring during pregnancy, the question arises as to how far pregnancy has been the cause or only an accompanying condition.

One author says that the causes of chorea in adults are about equally divided between pregnancy and rheumatism.

In some cases of pregnancy with chorea there has been a history of a previous attack of chorea in childhood, and the pregnancy seems to have been merely the exciting cause to provoke another attack. Again we find rheumatism co-existing with pregnancy and preceding the chorea.

A shock to the nervous system may also be the exciting cause of the disease, as it often is in chorea of childhood.

The theory that the cause of chorea is emboli in the small blood vessels in certain parts of the brain, and that these emboli are caused by the rheumatic poison in the system, was held until it was shown that only about twenty-five per cent. of the cases had ever had rheumatism.

Another theory is that there is a rheumatic inflammation and infiltration of the connective tissue, causing a temporary pressure on the nerve cells of the brain and cord, producing a functional disturbance.

Anæmia is often an antecedent of chorea, especially in pregnancy, the red blood corpuscles being greatly diminished.

Defective nutrition and exhaustive conditions of any kind predispose to chorea.

Chorea of pregnancy is not a common disease, and its literature is not extensive.

Gray, one of the best of recent writers on nervous diseases, disposes of the whole subject by saying, "The chorea of pregnancy is a rare disease, and I have never seen a case of it. It is said, however, to be very fatal, the percentage running as high as thirty-three per cent.

There has been but one case received at the Westborough Hospital and, as it combined rheumatism, fright, and pregnancy in its antecedents, and was accompanied by acute mania, I have thought it might be of interest if reported.

Mrs. E. C., aged thirty-one, was admitted to the hospital June 14, 1894. She had been discharged from the hospital on December 22, 1893, having been there nine months during an attack of melancholia. When admitted the first time she was quite anæmic, and was somewhat so when discharged, mentally recovered.

On her second admission she was excited, incoherent, and suffering from chorea. There were clonic spasms of the muscles generally, excepting those of the face. She could talk only with great difficulty, and in taking food it was necessary to place it far back in the throat. She was noisy and had hallucinations of hearing. She said she had not menstruated since March, and thought she was pregnant. She was given agaricus for the choreic condition and was kept in bed for rest treatment. For about a week she improved, and the spasms were less marked.

From that time she grew worse, became quite noisy at night, sleeping very little till toward morning, talking almost constantly, using profane and obscene language, and was quite violent to her nurses, in short, was acutely maniacal. The choreic movements were very severe, and she would throw herself forward if standing, or roll from the bed. For a while a loose bedsheet was used to keep her in bed and from injuring herself, but, later, on account of the heat of the restraint sheet during the warm days of July, the bed was taken from the room, and the floor covered with mattresses, on which she could roll.

She received belladonna for her maniacal condition, but there was very little improvement for a month. She then became somewhat more quiet.

For about a week previous to August 18 there was slight uterine hemorrhage, and, on the morning of that day, she miscarried. The placenta came away about two hours later, and the discharge was normal. The fetus was small and apparently about four months old.

The relief to the mental and nervous condition was immediate, and the chorea did not again show itself. The hallucinations of hearing, however, returned after a few days, and she would reply to them if alone. They steadily became less distinct and disappeared entirely in about six weeks.

She was discharged in December after a stay of six months in the hospital.

In studying this case after the patient became able to give her history, I found that she had been subject to rheumatism when a child. She could remember, that, at the age of ten years, she had suffered much from it, especially in her arms; she had not had chorea as a child, and stated that her family was free from any nervous diseases so far as she knew. At twenty-three, she had scarlet fever. She has two children. When the second was five months old she had severe pain in her knees, later in the spine, and

could not turn in bed for ten days. She was unable to walk for five weeks. This attack was a few weeks previous to her first admission to the hospital.

On her return to her home she remained well and able to care for her family for five months, but ceased to menstruate in March, and had the nausea of pregnancy from the middle of March. In May her younger child was ill, and the doctor said she would die. This frightened the mother so severely that she began at once to have clonic spasms of the left arm and leg. Four weeks later she was brought to the hospital. When discharged in December last she was in good mental condition, and entirely free from rheumatism.

It would seem from the consideration of this case that rheumatism had been an important factor in causing the condition of this patient. May it not be that her mental condition when admitted the first time to the hospital was in some way due to the rheumatic poison acting on the delicate fibrous tissue of the brain in a similar manner to its action on the fibrous tissue of joints or muscles?

In the second attack was not pregnancy the cause which maintained the choreic condition after it had been excited by fright, both acting on a soil prepared by the rheumatic poison for any form of nerve explosion?

What connection did the coexisting and longer-lasting mania have with the rheumatism which was troublesome at times before she left the hospital, and has returned once since the patient went home?

May not these attacks of insanity be what is classed by Clouston as rheumatic insanity, at one time causing depression and stupor, at another mania, accompanied by the motor disturbance?

Though this patient had had so much rheumatism, there were no signs of organic heart disease. A slight anæmic murmur was distinguishable at times during her first stay at the hospital, but none during the second.

Institute Etchings.

Reported stenographically especially for this Journal.

NOTE.—Dr. Kraft, recording secretary of the American Institute of Homeopathy, is in no sense responsible for the appearance of the following items nor for papers printed in previous issue. This explanation is due to Dr. Kraft, who has been accused of favoring this Journal, under the same financial management as his own, the *American Homeopathist*, when in truth Dr. Kraft is wholly innocent of the matter.—EDITOR.

RECTAL DISEASES.

DR. CHAPMAN: With regard to the importance of attention to the condition of the rectum, I have found in a large number of cases where women complain of pain, and are treated for ovarian trouble, that it all comes from trouble in the rectum. Since I found this out I have been able to relieve these cases as I could not before. The habit of onanism may come from trouble in the rectum in young girls, which would lead to congestion in the vagina and ovaries. It cannot be relieved till the condition of the rectum is cured. There are many young girls who form this habit who never know the cause of it. If we realize this one important thing we may be able to help a large number of cases. But until the condition of the rectum is recognized and treated the habit of self-abuse will continue.

TREATMENT OF DISEASES OF WOMEN.

DR. PHILLIPS: I think that something beside surgery is needed in many cases. There are a few points which I want to question. I believe in the effect of proper dress and posture in the treatment of malpositions. There are some in which firm adhesions have taken place in which these measures are absolutely inoperative. In these cases surgical interference is necessary. The cases may be treated for years and then someone will have to operate. Anterior displacements are of little consequence. If they

are abnormal they are flexions and posture will not cure them. Dilatation, straightening the canal, and maintaining the organ in a proper position are necessary. Now as to endometritis. Simply introducing a pledget of cotton with some medicament into the cervical canal does not cure endometritis. Erosions are due to the presence of bacteria, with consequent poisoning of the tissues of the cervix. Some strong antiseptic, as campho-phenique, will sometimes relieve these cases, but if they are very bad ones, curetting must be resorted to, thus securing complete destruction of the inflammatory process. I was glad that Dr. Millsop referred to venereal causes of many women's diseases. We give too little attention to the correct source of these troubles. If vaccination has helped to control smallpox, and boards of health by restrictive enactment can prevent the spread of scarlet fever and measles, an attempt should be made to control gonorrhea and syphilis by keeping the subjects of these diseases under observation, and prohibiting the marriage of those suffering from these troubles.

SALT WATER IN SURGICAL OPERATIONS.

DR. THOMPSON of Chicago: I use salt water in most of my operations, not only in case of shock, per rectum, but also in abdominal cases to complete the toilet. I use a solution of a strength of a tablespoonful to the pint. This is a very good local application in surgical work.

DR. BOOTHBY: I have had good results in my cases from injecting hot salt water into the rectum. It is usually necessary to have a nurse hold the water in. I repeat the injection several times.

DR. GREEN: I believe the proper strength of this solution is six drams to the gallon. This was used in a case of shock after laparotomy, in which the surgeon reopened the abdomen, and introduced this solution with an ounce of alcohol.

DR. WOOD: I have had some personal experience with the use of the salt solution in the rectum. I find it a

pretty good plan to add a little whisky, say an ounce or two. I have injected the fluid into the cellular tissue of the thorax, using an aspirating needle with a rubber tube and a glass funnel. The water must be pretty warm, 120 to 125 degrees at the least.

UTERINE TUMORS.

DR. LEE: It makes no difference whether you ligate the uterine artery, the ovarian, or both. There is only one way to stop the growth, and that is to take the uterus and tumor out. It is difficult to ligate the uterine artery where the tumor grows from the side. The uterus is often pushed upward and the tumor downward and it is difficult to find the artery. If there is a tumor growing on both sides the operation is not practicable.

OLIVE OIL IN INTESTINAL OBSTRUCTION.

DR. RUNNELS: Not long ago I had a patient with symptoms of intestinal obstruction which became so marked that it was thought best to operate. But before proceeding to the operation I had her drink a pint of olive oil with three drops of croton oil in it, and the result was that in a short time the operation was found to be unnecessary.

OVARIOTOMY IN SMALL FIBROIDS.

DR. J. C. WOOD: My experience in this direction is not extensive, being confined to seven or eight cases. In those cases the results were most satisfactory. All were small bleeding fibroids of the hard variety. None of them were larger than a fetal head, and in each case the result was most satisfactory in arresting development and controlling hemorrhage. However, I am inclined to think, since we have perfected vaginal hysterectomy, that it would be preferable in these cases. Nearly all my cases were done three years ago, and during the last year I have been operating much more through the vaginal route, and I think that instead of removing the appendages I shall try

to remove through the vagina. I believe that statistics are still on the side of the extra-peritoneal method of treating the stump. One cannot help feeling that this method is unsurgical and that in time the method of attacking the growths both below and above will prevail, and the question of the stump will not have to be taken into consideration at all. But so long as the statistics are on the side of the extra-peritoneal method, I think that where it can be done I should adhere to it. As an anæsthetic I still prefer ether, but shall be very glad to use the new method if it proves the better of the two. The opening of the wound is something I have never yet had happen, and I attribute this in part to the fact that I still adhere to the old method of closing the wound, that is, closing each layer of tissue separately. I have never had a hernia follow in the train of any of my laparotomies. As to the matter of operation in fibroids I am inclined to be conservative.

When the tumor is yet small and can be removed by the vagina, the mortality is less. A large per cent. of women have fibroids, and if they do not give rise to any trouble, we had better let them alone. There is a chance of their degeneration, but the per cent. is so very small that I believe it is better to let these cases alone, especially if they are not giving any trouble from deformity or pressure, nor bleeding too much. But the cases should be watched, and just as soon as there are any symptoms of trouble, be ready to operate.

TWISTED SILK FOR SUTURES.

DR. McDONALD: I use twisted silk instead of braided. I always feel safer with silk than with catgut. I feel that it provokes a more prompt plastic exudation. I want to say a word about the Murphy button. I believe that the caliber of the button is too small. One danger connected with its use is the possibility that when it is used near the stomach it may pass into the stomach instead of into the intestine. In spite of this I think it has a sphere of usefulness. In desperate cases, where it is necessary to make an

end-to-end union promptly, it is very useful, and gives good results in many cases. But reports of cases in which it has been used, are, in general, not very satisfactory. One point more : I think that preparation should be made for a possible wounding of the intestines, in all these cases, by having thread and fine needles ready, or something of the sort.

GANGRENE OF THE INTESTINES.

DR. GREEN: I was called to see a case that showed symptoms of intestinal obstruction. In forty-eight hours from the time I was called the symptoms indicated that a laparotomy would be necessary. So I operated and found about eight feet of intestine gangrenous. I failed to find any obstruction that would account for this condition. On account of the amount of intestinal tissue involved, I did not perform resection. The patient died in forty-eight hours more. At the autopsy, a patient inspection failed, at first, to reveal any cause for the obstruction, but after awhile we found the mesenteric artery occluded with an embolus. Since that time I read an article in the "Annals of Surgery" giving a report of three or four cases of gangrene of the intestine, caused by obstruction of the vessels. In one of these cases, four feet of the intestine was removed, and in another several inches.

METHODS OF INDUCTION OF PREMATURE LABOR.

DR. DANFORTH: Dr. Spaulding mentioned several methods, with special emphasis upon the method of the introduction of the bougie and subsequently by means of vaginal packing, whereby the cervix is softened, and after the softening, the dilatation of the vagina. These two methods are of the greatest value and should be placed first in the discussion. I will say something about the induction by the introduction of the bougie. That is especially good where time is not an important item. In contractions of the vulva it is of great value. In this condition as a rule, time is not an important factor. We may take

twenty-four hours or more. In such cases the introduction of the bougie is valuable and harmless. I have used a No. 6 or 8 English bougie, of course preceding the introduction with a thorough cleansing of the surface. It is not followed by chill if it is warmed. It can be introduced between the membranes without danger of rupturing the membranes. If this happens it is not serious, but it will not happen if care is used. The bougie will generally excite uterine contractions in twelve or twenty-four hours at the latest, and will make the process of labor resemble the natural one closely. If the cervix should be very rigid, the action of the bougie may be reinforced by hot water injections. This is sometimes required, if the uterus responds slowly to the irritation of the bougie and the cervix is rigid and firm. In these cases use large quantities of hot water, repeated at intervals of two or three hours. The uterine contractions are stimulated.

The method specially recommended by Dr. Spaulding, viz., the dilation of the vagina by means of the iodoform gauze, and the manual dilation of the cervix, by which he means the tiring out of the membranes, is one to be specially recommended where rapid delivery is desirable. I think in these cases, on account of the tendency to the contraction of the internal os upon irritation of the dilating hand, we are very apt to stop short of full dilation, and in proportion as we do that, we render the delivery of the child exceedingly difficult. It is exceedingly necessary in all cases of forcible dilation, the stretching—not tearing—be to the full limit of the dilation of the fist. Passing in one finger, then two, three, four, and then the thumb, and ultimately the whole hand, the fist being closed, is introduced into the cavity of the uterus. I believe the hand is better than Barnes' bags or Maclean's bags. They do well to commence the process, but the fingers do equally well and perhaps are superior, because the hand will enable you to determine whether the fibers are being torn or stretched.

One method of inducing labor is that of manual version. In some cases of placenta prævia, owing to the danger from hemorrhage, we have to act early, and the bi-manual method is important to keep hemorrhage down, and render the delivery of the child as nearly as possible a natural process. In threatened or actual eclampsia it is useful. For instance, you are called to a patient already suffering from puerperal convulsions. This may be just what you are desirous of, namely, to prevent the recurrence of the convulsions. If the cervix is dilated enough to permit the two fingers to enter, the water being only recently drawn away, bi-manual labor may be exceedingly difficult. One or both thumbs may be brought into the cervix, because the remaining thigh and breech makes a more effective dilator than when you leave the dilation to the breech alone. Thus the cervix is dilated, the way prepared for the child, irritation is reduced to the minimum, and the case will terminate more favorably and rapidly than where forcible dilation by means of the hands is used.

GLYCERIN FOR RIGIDITY OF OS.

DR. SMITH: I have not had experience with the introduction of glycerin for the induction of premature labor, but have used sterilized glycerin for a case of the most rigid os I have ever seen—as hard as a ring of rubber—absolutely unyielding. The labor had gone on twelve or fourteen hours without any improvement, notwithstanding I had used every method, with the exception of rectal injection of chloral. I used 2 oz. of glycerin carried with an elastic catheter to the fundus of the uterus and discharged through a glass syringe I had for the purpose. In less than an hour and a half the patient was delivered. The pains came on regularly. There was retraction as well as contraction, and labor went on rapidly. In one case of convulsions I used the glycerin, but without marked result. It did not even bring on pains. There was a good

deal of drainage, a good deal of that moisture you will always find about the mucous membranes where it has been used, but the pains did not go on and there was no relief whatever. Labor was then produced by dilating the cervix with the fingers and bringing down the feet of the child, which I think is the best method that can be employed under these circumstances. The physician has the case nicely under his control and can graduate the pressure and is not so likely to bruise the tissues. So much better than Barnes' bags or any other means of forcible dilation I have ever used. In cases of rigid os, delayed labor, where the pains are irregular, where the parts are becoming dry, where the waters have been drawn off hours before; there is contraction without retraction; where the labor does not advance; the patient becoming restless and tired and beginning to complain, then I do not know of anything that will quiet matters and bring that labor to a rapid conclusion so quickly as the introduction of an ounce or more of glycerin high in the uterus.

DILATING THE OS.

DR. WAITE: My preceptor, Dr. S. P. Burdick, told me that the hand was the best dilator that could be used. I questioned some as to whether a woman's hand was strong enough, but I have never had the least difficulty and have always used my hand in dilating. We even have some advantage on account of a woman's hand being smaller. I think a woman is strong enough, and the hand, being a little smaller, will get in where a man's hand cannot get, and she can do dilating.

One point as to the time of producing premature labor: The great difficulty we have to contend with in cases of deformed pelvis is to know the absolute, the supreme moment. There is a moment when labor may be induced with a possibility of saving the child. If we were gods and not men we would know just when to do that. This is the one thing that always makes me feel a little delicate about the

induction of premature labor. If there be emergencies or if the woman be in convulsions, I know the time has arrived.

INDUCING PREMATURE LABOR.

DR. RUNNELS: When there is no emergency it is my practice to choose my time. If you have decided on the sacrifice of the fetus, and if you have decided on the proper mode of procedure, it should be done before the size of the child is such as to make the delivery difficult. But where there is an emergency then it is the mooted question whether it is the thing to commence at once. Authorities seem to be divided at the present time. It has always been my practice to secure the delivery of the child as soon as possible, and not waste time by the use of glycerin or the introduction of bougies. In such cases I think the work should be accomplished by the gentle but persistent use of dilators, and I prefer my fingers and hands to Barnes' dilators. In two or three hours, in case of great emergency, that can be safely done. Do not always save either mother or child. The mortality is great.

WHEN TO INDUCE PREMATURE LABOR.

DR. BAILEY of Nebraska: I believe it depends somewhat upon the case you have. We should remember that obstetrics is a physiological process, and, so far as we can safely do so, we should imitate nature. I have recently seen articles that it was unsafe to puncture the bag of waters and bring on labor in this way. It seems to me that the use of glycerin and catheter is returning somewhat to the way of asepsis instead of antiseptis. Further than that, there is the wait and uncertainty. If we puncture the bag of waters very carefully with a small puncture we will have no danger before the escape of the waters, so as to induce a dry labor. I have three cases in mind. The first was heart disease and the patient was unable to lie down at all. It became necessary to induce labor. She was obliged to sit in a small rocking chair. I had the pains immediately

and as uniformly as possible. It lasted about four hours, and when the os was sufficiently dilated I delivered with forceps, sitting upright in a rocking chair. Another case was Bright's disease. The patient was not only oedematous but the symptoms gave us fear of convulsions. I gave an anæsthetic and used my hands. The next was a case of having taken poison. In that case I ruptured the bag of waters. In another case I did not puncture. I thought it necessary to dilate and apply the forceps. This is absolutely in keeping with the laws of nature. You know what the results are and I believe it is safer than awaiting uncertainties.

MORTALITY OF PREMATURE CHILDREN.

DR. SOUTHWICK: One point ought to be considered more. We can induce premature labor successfully by various methods, but we ought to consider more the life of the child. In my experience premature children have a high mortality and the child's life should be considered. I cannot help but believe that in a large number of cases the chances of the child are a great deal better, and the chances of the mother are as good if we allow the case to go on to full time and perform the operation if we have to do so.

In regard to the puncture of the membranes, I have not been so fortunate as to find that the labor came on immediately. Have tried the bougie, and found it punctured the membranes, and have had these cases go forty-eight hours without any contraction whatever. In one or two of the cases I have had a first class scare as to infection, in spite of everything I could do, and I have been glad to clean out that uterus. If we have to decide between the induction of labor previous to the eighth month and allowing the patient to go on, I can only say, in my experience it has been the exception for the child to live very long. A great majority die in less than a year.

Book Reviews.

All manuscripts for publication, and all books for review, in this journal should be sent to the Publication Office, 78 Maiden Lane, New York.

A PRACTICAL SYSTEM OF STUDYING THE GERMAN LANGUAGE FOR PHYSICIANS AND MEDICAL STUDENTS FOR SELF-INSTRUCTION. By Albert Pick, M. D., Boston, Mass. Published in 12 parts by Pick & Tanner, Newtonville, Mass. Price, \$5.00.

The method of Dr. Pick for self-instruction in German is eminently practical and a "royal road to learning," being thorough, clear and pleasant withal, so that a physician or a student carrying one of the parts with him and devoting to it odd moments through the day obtains in a few weeks a sufficient knowledge of the language to enable him to examine a patient or read a medical article in the original.

OBSTETRIC SURGERY. By EGBERT H. GRANDIN, M. D., and GEORGE W. JARMAN, M. D. Eighty-five Illustrations in the Text and Fifteen full page Photographic Plates. Royal Octavo, 220 Pages. Cloth, \$2.50, Philadelphia: The F. A. Davis Co.

This work is a valuable contribution to obstetric literature, giving minute and careful directions for the performance of all important obstetrical operations. The keynote of the book is elective surgery, that is, the resort to surgical procedure as soon as the necessity for surgical interference is plain to the physician. Just when that necessity arises must be left to the judgment of the physicians, and upon this point opinions differ widely, some obstetricians resorting to surgical procedure whenever labor is at all protracted, and others interfering only at the last moment. Doubtless the safest course lies between the two extremes, and most physicians, while differing from the authors as to the necessity for early operations, will agree with them that they should be properly done. In this respect the book is valuable, the directions concise and plain and the illustrations numerous and clear.

Pelvimetry, in its relation to dystocia, receives full consideration. The normal pelvic diameters are given as well as the diameters of the fetal head, the different pelvic deformities are described and stress is given to the important point which is too often lost

sight of, that it is the relative size of the fetal head and the pelvis that must be taken into account in determining the operative procedure that is proper in a given case. An undersized fetus may be delivered through a pelvis whose measurements are slightly below the normal, while an oversized fetus cannot be delivered through a pelvis that presents normal measurements. We are told that the pelvimeter is as indispensable to the obstetrician as is the microscope to the physiologist, and, therefore, that it should be associated with pregnancy, in his mind, as the forceps is with labor.

The limitations of the forceps and of version, and the beneficial effects to be obtained through timely resort to symphyseotomy and Cæsarian section are accurately stated. The indication for artificial abortion is clearly given and the technic of the operation is excellent.

DISEASES OF THE HEART AND ARTERIES: THEIR CAUSES, NATURE, AND TREATMENT. By JOHN H. CLARKE, M. D., C. M. Edin., author of "The Prescriber," editor of the *Homeopathic World*, etc. London: E. Gould & Son. 1895.

The publication of a new work upon heart disease is doubtless regarded by many physicians as akin to carrying coals to Newcastle. There are abundance of books upon the subject, and there is nothing new to be said as the condition is practically incurable and treatment simply palliative. This is only partially true, for, as the author says: "Heart disease is not by any means incurable; many forms of it are capable of being perfectly cured; and in others a practical cure may be effected through compensatory increase of strength, even when the damaged part does not of itself admit of repair." Combating the symptoms will often, if it does not actually cure the disease, enable the patient to live the full span of years, and here, as in all other serious conditions the remedy must be carefully chosen. Routine practice is of little avail in this class of diseases. As Dr. Clarke well says, the point to be remembered is that drugs do not cure diseases but patients. The keynote of the book is hopefulness; and if it did nothing more than point out the possibility of the cure of heart disease, it would deserve a hearty welcome. The book is concise, clear, and practical, and gives the indications for the principal remedies for diseases of the heart and arteries.

A REGIONAL AND COMPARATIVE MATERIA MEDICA, embracing new principles and methods of arrangement and giving in one volume full and immediate control of the entire Homeopathic Materia Medica, without abridging the usual form of the symptomatology. By JOHN GILMORE MALCOLM, M. D., and OSCAR BURNHAM MOSS, M. D. Chicago: Malcolm & Moss. 1895. Cloth, \$6.00; half morocco, \$7.00.

"Of the making of new books," even in King Solomon's time there was no end, and it was well perhaps for the king's peace of mind that he did not live in these *fin de siècle* days to confront the ever-increasing flood of books upon all conceivable subjects; if, however, the king had been a student of materia medica, and particularly of the homeopathic materia medica, he would doubtless have welcomed all works likely to throw light upon this abstruse subject, for the materia medica is a great stumbling block to the acquisition of homeopathic therapeutics. Like the dictionary, the stories to be found there are interesting but short and somewhat disconnected.

In a "Regional and Comparative Materia Medica," the authors have endeavored to overcome this difficulty by a new principle of arrangement whereby all the remedies pertaining to the chief regions, organs, and functions of the body are grouped in chapters so that under the heading of "mind," "head," etc., the remedies applicable to these regions, with their indications, are alphabetically arranged. That this is a great convenience to the busy practitioner in looking for the *simillimum* goes without saying, and the book will doubtless find a welcome place upon his desk. We have examined the book carefully and found the arrangement good, indications clear, and wording concise. We have also tested the book in practice and found it of practical value, and therefore hold it as a book which we shall always have within convenient reach.

ANTISEPSIS AND ANTISEPTICS. By CHARLES M. BUCHANAN, M. D., Professor of Chemistry, Toxicology and Metallurgy, National University, Washington, D. C. The Terhune Co.: Newark, N. J. 1895.

Antisepsis dates very far back in the world's history, the Jews, as we find in the book of Leviticus, having some conception of the contagious nature of some diseases and of the purifying effects of fire, while among the Greeks, as early as 500 B. C., the existence of contagia and miasma in the atmosphere was recognized. Coming down the centuries, the doctrine of antisepsis gradually

developed, until, within the last few years, it has attained its acme and the present time may be called the antiseptic era, when in the rage for antiseptis, other remedial agents and measures are forgotten. "Antisepsis and Antiseptics" is a practical contribution to the literature of the subject, giving a history of antiseptis, its relation to the prevention of disease ; antiseptics, their use and value, a full description of all antiseptic substances, with the practical rules followed by many of the most distinguished surgeons in their daily work. The arrangement of the text affords ready reference, which is greatly facilitated by a copious index of authors quoted and subjects treated. An interesting and valuable little book.

THE ACCOUCHEUR'S EMERGENCY MANUAL. By W. A. YINGLING, M. D., Ph. D., Philadelphia : Boericke & Tafel. 1895. Pp. 334, net \$1.25.

The object of this handsome little manual, as stated in the introduction, is to give assistance in the emergency, at the bedside, when assistance is most needed. It deals exclusively with the remedies and their application to the abnormal conditions of parturition, those which occur directly before, during, or after labor or abortion. As far as possible, all indications of remedies for labor and abortion, with hemorrhage and eclampsia are given. The first part contains the therapeutic indications of the remedies under the various rubrics, the second part, the repertories, which are as complete as needful. The work has been well done, all the remedies which are likely to be useful in an emergency having been collated with the special symptomatic applications to be found in the different conditions. It is a book for the obstetrician to have always with him, to read and to reread, and to turn to when in doubt as to the indicated remedy for any abnormal condition of parturition.

BOOKS RECEIVED.

Physician's Anatomical Aid, Pelvic and Genital Anatomy. The Physician's German Vade Mecum. Genito-Urinary and Venereal Diseases. Medical Gynecology. A System of Legal Medicine, vol. ii. Homeopathic Materia on a New and Original Plan. The London Homeopathic Hospital Reports. Fisher's Diseases of Children.

Materia Medica.

Senecio Aur. in Reflex Bladder Symptoms due to uterine irritation; it is especially adapted to nervous, excitable women where there is uterine irritation due to prolapse or flexion of the uterus.

Graphites in Amenorrhœa.—Goullon.—A young girl of twenty years of age, suffering from amenorrhœa, had the menses promptly re-established by the daily use of $\frac{1}{3}$ gram. of graphites third cent. trituration. Goullon also recommends this remedy in the treatment of menostasis in married women.

Calcareæ Fluorica in Diseases of Newborn Children.—Wm. Steinrauf.—On the head and scalp this medicine is indicated in case of blood tumors on the parietal bones of the newborn. Uneven lumps and hard excrescences on the scalp. In cephalæmatoma it is always indicated. There is no other remedy like it.

Gelsemium in Enuresis.—Dr. C. H. Evans.—Finds its sphere in children who have recently been the subject of diphtheria, and the incontinence is due to the semi-paralyzed condition of the sphincter; it is also called for when deficient innervation of the sphincter characteristic of this remedy parallels the incontinence of aged persons in whom other gelsemium symptoms are present.

Lilium Tigrum in Leucorrhœa.—Dr. Kent, St. Louis Jour.—Bright yellow leucorrhœa, excoriating, aggravated after the catamenia and it stains the linen brown. Accompanied by a bearing-down feeling as though the contents of the pelvis would be extruded through the vulva, if she did not hold them back with her hand. She is always in an undue haste about her affairs, and is troubled with much vesical tenesmus and palpitation of the heart.

Rhus Tox. in Scarlatina.—Prof. O. G. Tremaine.—I believe it has not been sufficiently appreciated. It is often of use both in cases of the ordinary type and those of a very severe miliary form, with dark rash, high fever, and especially in adynamic forms with red and glazed tongue, drowsy, œdematous condition

of the fauces and soft palate, with troublesome smarting and burning. It is often indicated at the onset of the miliary form of typhoid type.

Phytolacca for Prevention of Inflammation of the Breast.—T. G. Stonham has found phytolacca of great service when it is necessary to suddenly wean a child from the breast. A little of the mother tincture poured into the palm of the hand, and the breast very gently rubbed with it, eases pain and tension, and after a few applications the breast dries up evenly without leaving any engorged or inflamed lobules. Its use in inflamed and suppurating breasts is too well known to need mention.

Ambra Grisea in Whooping Cough.—F. Cartier has had the opportunity of absolutely confirming the value of ambra grisea in whooping cough with the characteristic of eructations during the whoop. This symptom is plainly indicated in the homeopathic materia medica: "Ambra grisea is advised in cough, be it whooping cough or not, when the cough is followed by eructations, by flatulence coming from the stomach. There are not many remedies which cure this symptom, ambra grisea is one of the best."

Mercurius Cyanatus in Vaginal Ulceration.—T. G. Stonham treated a case of extensive vaginal ulceration, not specific, in which there were attacks of shivering, followed by rises of temperature to 102° or 103° , succeeded by profuse perspirations. These attacks occurred every night, and the patient was rapidly sinking into an exhausted and dangerous condition. After giving several remedies, both local and general, without effect, she was put on mercurius cyanatus, and in two days the rigors and temperature had ceased, and she rapidly convalesced.

Arsenicum in Ovarian Pains.—Dr. McMichael, Hahn. Mon.—Drawing, stitching pains from right ovary into thigh, which feels numb and lame. Burning, lancinating pains as from hot coals, accompanied by throbbing. Better from hot applications and much worse from cold, motion, bending, or sitting, bent at midnight.

Concomitants: Menses too early and profuse; leucorrhœa acrid, yellow. Anxiety, restlessness, fear of death, great thirst, aversion to food, burning in stomach, vomiting immediately after

eating or drinking. Excessive weakness ; adapted to nervous temperaments, sad and irritable dispositions.

Cyclamen in Dysmenorrhea.—Dr. Olds, Med. Adv.—The menstrual periods come too early, and the blood is black and clotted, the flow is too profuse. Before the menses, sadness, melancholy, fear, irritability. When the flow comes on, the mental state is relieved. Pains start in the back, passing down across the abdomen to the pubes and into the thighs. The pains are violent, while they are present the flow ceases, but on the pains ceasing the flow starts again. Before menses, there is bloating of the abdomen with great sensitiveness ; after the menses there is swelling of the breasts and perhaps secretion of milk, and a peculiar sensation as if air were streaming through the nipples.

Belladonna in Nocturnal Enuresis.—Dr. Mackechnie, Hom. World.—Annie R., æt. fifteen, a servant. For a year has suffered from enuresis. It is fitful, occurring every night for a week, then not for several nights. She is very restless in sleep, talks in sleep, dreams and wakes in frights. Appetite is good, bowels regular, no worms. No signs of sexual development yet. She has also hemicrania of right brow. Ordered belladonna. Next week better. Has only once wetted her bed since commencing medicine. Headache gone. She still talks in her sleep, and dreams of falling. Repeat belladonna. During next two weeks no enuresis and no dreaming. She now complained of frontal headache, for which glonoine was given, and relieved. Six weeks after had no return of enuresis, and head was better.

Salix Nigra in Dysmenorrhea.—Dr. Hale, Med. Times.—Several years ago I recommended the tincture of the buds of salix nigra (black willow) as an excellent sedative to the uterus and ovaries, being superior to bromides, and without any pathogenetic effects.

In the Medical Times and Hospital Gazette Dr. Shaw gives some clinical experience which more than confirms my recommendation. He says it will quickly relieve the excruciating pains of dysmenorrhea and afterpain. In one case five doses kept the patient free from violent afterpains, although in her nine previous confinements she had suffered five or six days. Two cases presenting nervous, irritable conditions, somewhat resembling the

incipient stage of puerperal insanity, were relieved by *salix nigra*. He asserts it is superior to morphine in abating pelvic pains.

Gynecological Etchings.

The Origin of Papillomatous Cysts.—Dr. Kossmann, *Monatschrift f. Geburtsh. u. Gynäk.*, believes that there is no truth in the current theory that papillomatous cysts of the ovary and broad ligament are developed from the parovarium. He goes further than Whitridge Williams, who has stated his opinion that these cysts are sometimes developed from elements belonging to the fallopian tube itself. Williams has detected tubelike involutions in ovarian tissue which he actually traced to tubal fimbriæ. Kossmann holds that what Williams considers exceptional is really the rule. He attaches great importance to accessory tubal structures, originally part of Müller's duct, like the normal tube itself. These structures are seen not only as accessory ostia and accessory fimbriæ on the surface of the tube, but also as pedunculated fimbriæ or pedunculated cystic bodies springing from the surface of the broad ligament below the tube. Kossmann finds as the result of careful research, that non-pedunculated intraligamentous cysts have a like origin. The objections to this theory are futile, the tube itself is intraligamentous in position; that an accessory tube should be similarly placed is only natural, and the microscope proves that it often is so placed. Kossmann endeavors to prove that papillomatous cysts cannot well spring from the parovarium. Previous theories are wrong; papillomatous cystic tumors of the ovary, as well as those confined to the broad ligament, are developed, he insists, from "paratubal" structures.

Prostitutes and Tubal Abscess.—That tubal abscesses in married women are in a large measure traceable to gonorrheal infection from latent gonorrhea in their husbands is maintained by most gynecologists. It is quite common for physicians to maintain that the origin of this condition is to be found in gonorrheas which were supposed to have been cured long before

marriage. It is, in fact, contended by many that the danger of infection from a case of gonorrhea never wholly passes away. That the gonococcus become dormant, and remain so for years, becoming vivified when sexual intercourse is indulged in, and that they then invade the uterus and tubes of the bride. If this contention be true, prostitutes who ply their trade more than two or three years ought not to possess healthy ovaries, for it is the rarest thing for them to escape having in that time two or more attacks of gonorrhea. Yet, as far as reading and personal observation go, it appears that the number of operations on account of salpingitis among prostitutes is disproportionately small; and this notwithstanding the fact that the temptation is great for those who would gain experience to operate on this class of patients. It would be interesting to know what proportion of cases of pus tubes are found respectively in chaste women and prostitutes.

Intra-Uterine Therapeutics.—Dr. Duhrssen.—Curetting of the uterus, which I consider excellent for combating catharrhal endometritis, was introduced in Germany by Professor Olshausen. I am in the habit of following it up with cauterization of the uterine cavity, and in the majority of cases treated in this manner the patients are cured. Curetting needs to be done under anæsthetics, in order to be thorough, but should never be resorted to if a lesion of the appendages exists.

I never inject any caustic fluid into the uterus, but prefer employing a Playfair's probe with a small piece of cotton-wool steeped in a fifty per cent. solution of chloride of zinc wrapped around the end. First, however, I wash out the cavity of the uterus.

Stuffing the uterine cavity with iodoform gauze is advantageous both as a diagnostic and therapeutical measure.

Dilatation of the cervix uteri by sanguinary methods should but rarely be resorted to. When I have to do it, I prefer the following procedure: The uterus is drawn down with forceps, after which I separate the wall of the bladder from that of the uterus; I then incise the latter, so as to permit me to penetrate into the interior and extract any myomata that may exist.

Rectal Examination of the Uterus.—Dr. Howard Kelly.—Everyone knows the freedom with which air may be made to

distend the vagina when a patient is examined in the genupectoral or in the semi-prone position ; but we doubt if it is generally recognized that when a patient is placed in the genupectoral position, the thighs being vertical, the insertion of a tube through the anus, so as to allow air to enter the rectum, causes this viscus to become distended, the small intestines falling out of the pelvis into the abdominal cavity, and the rectum filling like a balloon with air, the anterior surface applying itself broadly over the posterior surface of the uterus and the left broad ligament. Immediately after filling the rectum with air, the tube is to be removed, and if then the patient be placed in the ordinary dorsal position, and a bimanual examination be made per rectum and abdomen, the finger is felt to enter the large cavity of the rectum without the customary resistance, the communication with the upper bowel between the utero-sacral folds is readily found, and the finger is conducted behind the broad ligament, when, on using the outside hand in assistance, uterus, broad ligament, ovaries, and tubes are at once palpated directly through the rectal wall without resistance and with startling distinctness. The true pelvic viscera are thus seen, as it were, to be skeletonized in the pelvis, lying so clearly exposed to touch that the minuter surface peculiarities, fissures, and elevations, and changes in consistence can be detected more rapidly and with far less effort than under ordinary conditions.

Relation of Heart Disease to Menstruation.—Dr. Gow (Med. News) reports the result of a study of the menstrual function in fifty cases of women having heart disease. In twenty-eight the menstrual flow was unaltered ; in seventeen it was absent or scantier than before ; in five it was either more profuse or recurred more frequently than before. In no case was there good evidence that heart disease gave rise to severe menorrhagia. Amenorrhea or scanty menstruation appeared to be a more common accompaniment than menorrhagia. A further analysis of these cases seemed to point to the fact that heart disease led to relative sterility, and also that it increased the tendency to premature expulsion of the ovum. A large number of women suffering from valvular disease of the heart passed safely through the period of pregnancy and labor. Of mitral stenosis there were

twenty-two cases; in nine menstruation was regular, and the amount of blood lost unaltered; in five cases menstruation was regular, but more scanty; in four there was amenorrhea; in four menstruation was either more frequent or more profuse. There were fifteen cases of mitral incompetence; in ten menstruation was unaltered, in four more scanty; in one there was amenorrhea. Mitral stenosis and incompetence were present in seven cases; in four menstruation was unaltered, in one more scanty; in one there was amenorrhea, and in one the menstrual loss was slightly increased. There were two cases of aortic incompetence and obstruction; in both menstruation was unaltered. In three cases there was aortic and mitral incompetence; in these menstruation was unaltered. One case presented aortic incompetence and obstruction and mitral incompetence; in this the menstrual loss was scantier than before.

Obstetrics.

A Small Percentage.—A. P. Mac Donald, M. D.—In my twenty years' experience I attended about seven hundred cases of confinement and saw only two twin pregnancies. The first case is of interest because of the amusing incident that brought me into the case. After the birth of the first child the midwife in attendance worked two hours to get the afterbirth. She tied the cord to the mother's leg for fear it would be drawn back into the uterus. When I responded to the emergency I found the midwife tugging at the cord. An examination revealed a second bag of water, which I ruptured, and I had the child and afterbirth in twenty minutes. My second case is devoid of interest in everything except that they were born in the sixth month of gestation, and died shortly after birth.

Induction of Premature Labor in Contracted Pelvis.—Dr. Beuttner, Archiv f. Gynak., strongly favors this practice, and supports his opinion by valuable and well-analyzed statistical tables. The question of induction of premature labor is not much influenced by the number of pregnancies through which

the patient has already passed. The course of a previous pregnancy has little to do with the difficulties faced when labor should be induced. A conjugate of from $3\frac{1}{8}$ inches is no contra-indication to induction of labor; decision rests, of course, not on great mechanical difficulties, but on a trifling misproportion between the pelvic measurements and the fetal head. Whenever the head has grown just large enough and not too large to pass through the outlet when pressure is applied from without, under anæsthesia, if necessary, labor may be induced. The presumable stage of the pregnancy does not bear a reliable ratio to the degree of development of the fetus; careful exploration is better than calculation. Fehling's opinion, that in the lesser degrees of contraction spontaneous delivery gives better results than induced premature labor, is not supported by Beuttner's experience. The puerperium is not unfavorably influenced by induction of labor.

A Method of Extracting the After-coming Head.—Dr. J. Pulvermacher, *Centralblatt für Gynakologie*, asserts that, in many cases of labor with a foot presentation, the head of the child is found with the occiput resting partly or wholly upon the pelvic wall, bent at an angle to the neck, so that the examining finger can feel only an ear and the presenting part of the cheek or the zygoma. Other parts of the face the finger cannot reach. Usual methods for delivery can be applied only in part, and, when applied, do not accomplish the results desired. In such cases he employs an instrument with a dull hook at each end. This is guided to the region of the zygoma, and, with the hand in the vagina, the blunt end of the instrument is pressed firmly against the head. On the other hook-shaped end, which projects from the genitals, firm traction is made by the other hand. During this time the nurse, with one hand on the legs of the child, draws downward, and with the other makes pressure through the abdominal walls upon the head. The face quickly turns toward the hollow of the sacrum, and the head is rapidly delivered. The pressure of the hook produces no injury to the face and scarcely causes an abrasion of the skin.

Fatal Vomiting of Pregnancy.—Three fatal cases of hyperemesis gravidarum are reported by Dr. Davis. In two there was ante flexion with impaction of the pregnant uterus. All suffered

from substernal pain. In one, where a necropsy was performed, extensive acute degenerative changes were found in the viscera. Death was due chiefly in these cases to pernicious anæmia. The substernal distress of which these patients complain may properly be considered as a reflex of the uterus in a pathological condition. Sudden and radical improvement does sometimes occur in cases of uncontrollable vomiting of pregnancy, but when pernicious anæmia is once established, delay in dilating and emptying the pregnant organ is dangerous at any stage of the pregnancy ; and even when the uterus is found impacted, raising and sustaining it will not be sufficient, as two of the recorded cases clearly proved.

Turpentine in Post-Partum Hemorrhage.—Dr. N. Mayne, Trained Nurse, recommends spirits of turpentine in post-partum hemorrhage. When the ordinary means, i. e., friction over the uterus, irritation of the uterus by introduction of the fingers, cold, selected remedy, etc., failed, by saturating a piece of lint with the turpentine, and introducing it in the hand into the uterus and holding it against the walls, rapid contraction took place, and all hemorrhage instantly ceased. In one or two cases, when the patient was almost pulseless, it seemed to act as a stimulant. On no occasion did its action fail or did it cause the slightest inconvenience, except in one, when the side of the patient's thigh was slightly blistered by some that came in contact with it, but it gave very little annoyance. He considers it is much quicker and surer in its action than any other remedy ; and does not cause any injurious result, and is much more easily applied. In country practice, getting hot water or using injections often means loss of valuable time.

Puerperal Blood-Poisoning and Sewer Emanations.—In discussing this question, Dr. M. Handfield-Jones, London, alludes to sewer-gas poisoning as a special source of danger in private obstetric practice, never found nowadays in the lying-in hospital. Some attempts have recently been made to show that these poisons are not so toxic as have been supposed, that men who work in the sewers enjoy very fair health, and that the poor who live in insanitary houses do not suffer to the degree that one might expect. In every case of such poisoning, however, there are two points to be considered : (1) the resisting-power of the

patient's tissues, and (2) the amount of the poison present in his system. The attention of the author has been drawn to the fact that in fermentative processes (and most of these septic poisons are productive of fermentative changes) the resultants may be either of a gaseous or of a solid nature. In case of the latter, the patient's system must soon become charged with an overpowering amount of the poison, and symptoms of disease will manifest themselves; while in the latter case the poisonous products are eliminated by the lungs as fast as they are formed, and toxic affections are only manifested under very unfavorable surroundings or after long exposure to the influence of the poison. Given the case of a woman who has spent weeks before delivery in an atmosphere constantly charged with sewer emanations, and in whom vitality has been lowered by this cause in addition to the exhaustion, the impairment of nervous force, the stretching and bruising of tissues, and the presence in the blood of the products of retrograde metamorphosis from the uterus and surrounding parts consequent upon labor, and it is easy to understand how rapidly symptoms of blood-poisoning may develop and life be quickly endangered. It is no argument to say that if these things were so cases would be more frequent in the poorer districts of our great towns.

Sewer-gas is sewer-gas, whether it is found in the hovel or in the mansion, and probably it exists quite as often in the mansion or villa with elaborate bad drainage as in the cottage and hovel with its open cess-pool or pit. But in one case we have the poor woman of coarser fiber and more resisting tissue, who spends a good deal of her time out of her house and away at work, and in the other the more refined but feebler patient, who spends much, perhaps, of her time in the bedroom or boudoir, which acts as a ventilating-shaft to the nearest soil-pipe.

In endeavoring to decide whether a given case of puerperal blood-poisoning is due to the influence of drain-products, the following points may aid in forming a diagnosis: 1. The rapid onset of symptoms after delivery. 2. The illness of the child as well as the mother; the improvement following a change of locality. 3. The type of the disease—absence of intense prostration, the slow progress, only practical cessation of milk and lochia, rareness

of peritonitis, and remissions of temperature. 4. Other cases of illness of a low type in the same house or neighborhood.

Pediatrics.

Circumcision.—Med. Rec.—In most cases the foreskin adjusts itself to conditions of perfect cleanliness at the time of puberty, if not before. Physicians are not so senseless as to unnecessarily mutilate themselves and their families. Circumcision is a relic of barbarous and semi-civilized times, before soap and water and sanitation had been preached. It no doubt served a useful purpose among the nomadic tribes of tropical countries. But in these days physicians should cease to preach or impose upon their patients an unnecessary and irrational mutilation.

The rite which in these modern times might be substituted for the early religious ceremony of circumcision would, according to some, be resection of the spermatic cord of the vicious and defective classes, so that they should cease to propagate their kind. Spermatorectomy will probably triumph over and replace circumcision, if anything does.

Jaundice in the Newly Born.—A. Schmidt, Archiv. f. Gynecol., confirms previous observations that strong, well-developed children more rarely develop icterus neonatorum than weak ones; that children with icterus develop slower than non-icteric ones; that it is more apt to occur in male children, both those born at term and those prematurely born, than in female. It most frequently develops on the second, third, or fourth days after birth. The average duration is 6.2 days.

In regard to etiology he dissents from the view commonly held that it is most apt to develop in children whose umbilical cord has been severed late, that is, those to whom as much blood as possible has been supplied after birth. Observation were made in 150 cases: 50 were severed at the instant of birth, and 100 later, mostly after the expulsion of the placenta. In the first set of cases icterus appeared almost twice as frequently as in the

second set. Severe forms occurred more frequently and lasted longer in the first set than in the second set of cases.

Athletics in Childhood.—The period of growth in children creates certain morbid predispositions, and under such conditions excess in physical exercise may be followed by serious consequences. After violent games of football, tennis, or the too prolonged use of the bicycle, the fever of overexertion may supervene, with the complications that accompany it, as prostration, curvatures, pain, dyspepsia, dilatation of the heart, palpitations, syncope, and articular inflammation.

It is, therefore, of great importance for parents to have their children examined before allowing them to give themselves up to any particular sport, and to forbid it if there be any trouble of the circulatory, locomotor, or digestive, or nervous system ; to insist upon progressive and gradual increase of the exercise, whatever it be ; and, while encouraging athletics and gymnastics, to forbid any competition in these sports.

Crying in Children.—Dr. E. C. Hill.—The crying of children in pneumonia and capillary bronchitis is moderate, and peevish, and muffled, as if the door were shut between child and hearer. The cry of croup is hoarse, brassy, metallic, with a crowing inspiration. That of cerebral disease, particularly hydrocephalus, is short, sharp, shrill, and solitary. Marasmus and tubercular peritonitis are manifested by moaning and wailing. Obstinate, passionate, and long-continued crying tells of earache, thirst, hunger, original meanness, or the pricking of a pin. The pleuritic is louder and shriller than the pneumonic, and is evoked by moving the child, or on the child coughing. The cry of intestinal ailments is often accompanied by wriggling and writhing before defecation. Exhaustion is manifested with a whine. Crying only, or just after coughing, indicates pain caused by the act. The return or inspiratory part of the cry grows weaker toward the fatal end of all diseases, and the absence of crying during disease is often of graver import than its presence, showing complete exhaustion and loss of power. Loud screaming sometimes tell of renal gravel.

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THE INDUCTION OF PREMATURE LABOR.

BY

HENRY EDWIN SPALDING, M. D.

ALTHOUGH it is two centuries* since the induction of premature labor was advised to check hemorrhage incident to placenta prævia, it was half a century† later when it was first proposed as an expedient in cases of contracted pelvis. While looked upon with favor and practiced to some extent in England,‡ it was tardily accepted on the Continent, being the subject of animated, sometimes acrimonious, discussion. Religious prejudice had a strong voice in the opposition, the distinction not being drawn between an abortion, or forced delivery, entailing the destruction of one life and an early delivery aiming to preserve two lives. It finally gained recognition in Ger-

* Justin Siegmundin, 1690; Puzos, 1707; Bohn, 1717.

† Council of physicians in London, 1756.

‡ Macaulay, Kelly, Burns, Barlow, Denman, Clark, Ramsbotham, and others.

many,* Holland,† Italy,‡ and France. In the latter country it was rejected by the Academy of Medicine, under the influence of Baudelocque, as late as 1827. The discussion, however, continued, and soon such successes were reported by Stoltz, P. Dubois, Lacour, Ferniot, Lazare See, and others as to give it a recognized place in the obstetrical practice of France, which it holds to-day.

While the induction of premature labor is now a generally recognized procedure in the science of obstetrics, the special indications demanding it, and the methods of bringing it about, are still unsettled questions. In each instance where it is proposed to interrupt the normal progress of gestation we have to consider not so much the avoidance of suffering as the preservation of life. In most instances, not only the life of the child, but also that of the mother, will demand our consideration. In others, the life of the child alone is at stake. The rule will stand, that a delivery so difficult as to cost the mother her life will prove fatal to the child also, or at least place it in extreme hazard. In all cases the question of interference is of such momentous importance that the judicious physician will fortify his action by calling others in council, unless when, as in eclampsia or hemorrhage, instant action is demanded.

The chief abnormalities suggesting premature delivery are :

Contracted pelvis.

Hemorrhage.

Progressive albuminuria.

Eclampsia.

Tumors.

Cicatricial constriction of the vagina.

Pernicious vomiting.

The habit of giving birth to stillborn children.

* First performed by Wenzel, 1804 ; Krauss and Reisinger, 1813 ; later, by Osinder, Stein, Jr., Ritgen, etc.

† Thermen, Salomon, Vrolik, and Wellenbergh.

‡ Lorati, Billi, Fevravio.

Deformity of the pelvis is by far the most frequent abnormality calling for premature delivery, and it presents numerous questions for the careful consideration of the accoucheur. Each case will have its individual characteristics, hence must be a law unto itself. The most common pelvic deformity is a narrowing at the brim of the antero-posterior* diameter. If this narrowing be slight, and the transverse diameter be normal, remembering the molding to which the fetal head may be safely subjected, it may be readily assumed that early interference is not demanded, as would be the case if contraction of the canal were general.

In multipara the history of previous pregnancies must be considered, and the difficulties attending the deliveries analyzed. It must be learned if the children had large and firmly ossified heads, and if this characteristic prevailed on either the maternal or paternal side. Measurements have been made of large numbers of fetal heads, thus giving average dimensions, which, in the absence of any family characteristic to the contrary, may be accepted as applicable to the given case.

It having been discovered that the relative† diameters of the pelvic canal and the fetal head are such as to preclude possibility of normal delivery at term with safety to mother and child, we have to decide whether it is better to induce premature labor or to allow gestation to complete its term and then resort to symphyseotomy, Cæsarian section, or Porro's operation. Since our object is to save the lives of both mother and child, embryotomy is outside the question.

Statistics, as far as statistics go, indicate that, compared with Cæsarian section and Porro, the percentage of maternal mortality in premature delivery is almost nothing. In

* "Difficult Labor," by S. Edward Herman, M. B., F. R. C. P.

† Noegeli and Grenser advise premature delivery with an antero-posterior diameter between 2.73 in. and 3.7 in.; Velpau, between 2.63 in. and 3.7 in.; Jocquenier, Dubois, and Jaulin, 2.54 in. and 2.75 in.; Depaul, at 2.34 and more; Tarnier, at 2.14 in. and more.

fact, with our present knowledge of antiseptics, in uncomplicated cases, if the operation be skillfully performed, there should be no percentage of maternal mortality in forced premature labor. Taking all cases together, five per cent. of mortality has been reported. The percentage of fetal mortality is also in favor of premature delivery, although the percentage of infant mortality during the first few weeks of life is very large in the prematurely born. This percentage is being greatly lessened by our present improved methods of caring for these cases.* As regards the advantages of symphyseotomy† the question is more even. Statistics thus far give the percentage of maternal mortality is about double that in induced premature labor. This percentage includes cases which have been a long time in labor, many of them having suffered extensive lacerations and contusions from futile efforts at extraction with forceps; some with marked elevation of temperature and pulse, showing that inflammatory action had already set in. Taking only such cases as had been early diagnosed and everything prearranged for delivery with the aid of symphyseotomy, it is probable that the maternal mortality would be very slight.‡ With a conjugate diameter of three inches or more, by some it is said two and three-fourths inches or more, the other diameters being normal, it seems justifiable to allow gestation to go on until term and then, all preparations having been made in advance, if delivery cannot be accomplished with the aid of moderate and careful forceps traction, the aid of symphyseotomy may be confidently depended upon to effect delivery with safety to both mother and child. Should the conjugate diam-

* At the Paris Maternity 30 per cent. at the end of the sixth month have been reared; 63.6 per cent. at the end of the seventh month, and 85.7 per cent. at the end of the eighth month.

† Garrianes, Pan-American Congress, 1893. Noble, do. Dr. Chas. K. Noble, Am. Gyn. Soc., May, 1894. Dr. R. P. Harris, Amer. Gynec. Soc., 1892.

‡ Prof. Paul Zweifel of Leipzig, in twenty-three consecutive cases, lost neither mother nor child.

eter be between two and three inches, we may increase the chances of saving the child by allowing gestation to more nearly approach full term if we depend upon symphyseotomy to aid us, if necessary, when delivering prematurely.

Premature delivery having been decided upon, it becomes of the utmost importance to determine the exact stage of pregnancy, so that the chosen time for delivery may not be before the child is viable, on the one hand, nor needlessly endanger it through delay on the other. If the narrowing of the pelvic canal be but moderate, an error of a week or two will not be of great moment, only being cautious not to delay delivery too long. If, however, the narrowing be so great as to demand delivery at the earliest possible date compatible with the viability of the child, it is of the utmost importance that the exact fetal age be known.

Reckoning from the end of the last menstrual flow, there is liability to an error of two weeks. The same may be said of the time of quickening. Sometimes the woman cannot fix the date of the last menstrual flow, or the first sensation of motion. As a further aid it will frequently be found that at certain intervals she has had peculiar pains or sensations. It may be nausea, headache, uncontrollable languor, or oftener bearing down, and simulating her ordinary menstrual discomforts. The recurrence of these attacks may be found to exactly correspond, in point of time, with the habitual recurrence of her menstrual period. In short, they mark the menstrual epoch, and, taken with other signs, they may give material aid in establishing the date of conception, and electing the most favorable time for bringing on labor.

The normal rhythmical contractions and relaxations of the uterine walls being more marked at the time of the menstrual epoch, the end of the eighth or ninth lunar month will usually be found most favorable to the easy induction of expulsive contractions, and most in accord with the process of nature, hence, nothing contra-indicating,

one of these periods should be chosen. Ahlfeld claims that as the fetus lies flexed in utero, it measures one-half its length when extended. He applies one arm of the pelvimeter to the presenting part within the vagina, and the other upon the abdomen over the fundus, the other end of the fetus. Multiplying this by two gives the length of the fetus, which, compared with a table representing the average length of a fetus at different stages of development, gives, approximately, the age. The result thus obtained cannot be very reliable. Among other things the varying thickness of abdominal walls might lead to error. Still, making allowance for inexactness, this may be used as corroborative of other estimates.

Now, having as accurately as possible established the stage of gestation, it is necessary to elect the day for delivery. As before stated, the end of the eighth or ninth lunar month are most favorable, nothing contradicting. It is, however, generally thought best to defer the day of delivery to as near the normal end of pregnancy as possible. With that end in view, it is advised that the bi-parietal diameter of the average fetal head at different stages of development be compared with the antero-posterior pelvic diameter at the brim, and as soon as, according to this, the head attains the full capacity of the pelvis, allowing .4 of an inch that the head is safely compressible, delivery should at once be accomplished. A very simple, and at the same time reliable guide to go by is, by means of digital examinations see if the presenting head* readily enters the superior strait. For this purpose examinations should be made every six or eight days, placing the patient under anæsthesia if necessary. With one or two fingers of one hand in the vagina, and pressing the fundus firmly down with the other in the direction of the axis of the pelvic canal, he will readily detect with what ease the head engages. When this cannot be accomplished, an early day should be set for delivery.

* Dr. Bentner: *The Lancet*, May, 1895, p. 152.

Hemorrhage occurring after the fourth month of gestation is usually caused by the implantation of the placenta over the os uteri. The advisability of precipitating delivery in cases of placenta prævia is universally conceded. The only variance of opinion is as to the time and method of doing it. Ordinarily severe hemorrhage does not occur until the last few weeks of pregnancy. This, however, is usually preceded by one or more slight attacks. The earlier the hemorrhage occurs the more certain it is that the placenta is centrally located over the os, which increases the liability to sudden and profuse hemorrhage, thus placing the lives of the mother and child in extreme danger. It is true that with great care, like the avoidance of all exercise and the upright position, pregnancy may be prolonged until nearly full term. But this is uncertain, and there is constant danger that sudden and uncontrollable hemorrhage may set in at a time when the physician is not within immediate call. It seems then that, as soon as the fetus has reached a viable age, the safety of both mother and child will be enhanced if a time be selected when all things are at hand for protection of the mother against fatal loss of blood, and for the care of the prematurely born child, to bring about a rapid and forced delivery.

The presence of large amounts of albumin in the urine demands close attention and careful consideration. Many cases are so amenable to dietetic and medicinal treatment that they may be carried along to full term safely and without accident. Some cases resist all treatment, so far as reducing the amount of albumin is concerned, and yet pass through a normal labor at term. Some, in spite of treatment, even show an increasing amount of albumin during the last few weeks of pregnancy, and still escape any serious complications at the time of delivery, and make a good recovery afterward. Others, without any premonition except a moderate albuminuria, are suddenly thrown into

the most violent convulsions, placing both mother and child in extreme danger. It is a recognized fact that eclampsia is usually preceded by albuminuria, but it does not follow, as already stated, that eclampsia shall succeed albuminuria. While the supervention of eclampsia is the chief immediate danger in these cases, the danger to the mother does not end there. When in defiance of all treatment, there is increased albuminuria, hematuria, subnormal secretion of urea, impaired vision, neuralgia, and anasarca, we have a condition that foretells ultimate fatal results, or, at best, hopeless or prolonged invalidism, even though the ordeal of labor be passed without the dreaded eclampsia, which cannot be reasonably expected. It must be borne in mind, moreover, that eclampsia proves unaccountably fatal to fetal life, comparatively few children withstanding repeated eclamptic attacks. It is important that these cases be watched closely and understandingly. If the albumin persists in large amounts or increases; the urea is materially subnormal, with perhaps hematuria and renal casts, more especially if visual and other cerebral symptoms become manifest, it is advisable to at once empty the uterus, thus hoping to save the child, if viable, and give the mother a fair chance for recovery.

In case eclampsia has actually supervened, it is almost universally advised that the uterus be emptied without delay. It may be possible thus to save the life of the child, and in most cases the convulsions then cease, or can be kept under control until remedies can have sufficient time to act in restoring to the kidneys their normal functions.

In case of uterine fibroids nature not infrequently furnishes relief by an abortion during the early months of pregnancy, and thus suggests a course for the accoucheur to pursue in case the tumor is so located in the cervix, or lower segment of the uterus, and so large as to positively obstruct the entrance to the pelvic canal. It is evident, however, that our text-books on this subject sadly need

revising. That the presence of fibromata in the uterus are so disastrous to the favorable progress of gestation and labor as is ordinarily taught, experience does not prove. Hofmeier says that of twenty cases of pregnancy associated with uterine fibroids, only two were delivered before full term. He concludes as follows:

"The presence of myomata during pregnancy, labor, and puerperium, is rarely the cause of serious consequences, and the dangers may be essentially diminished through patience, proper judgment, and an antiseptic management of the case."

In a recent discussion of the subject by the British Gynecological Society (October, 1894), Dr. Routh reported a case which was admitted to the hospital at the sixth month, with a fibroid as large as a fetal head occupying the lower segment of the uterus. It was decided to allow gestation to continue to full term and then perform Cæsarian section. But nature took the case out of the hands of the surgeons. Labor pains came on. The tumor rose out of the pelvis. The head descended and a living child was born without accident or difficulty. Unfortunately, this happy result cannot be depended upon when the tumor is thus located and large. If the tumor be in the fundus, nature will take the best care of the case. If the size of the tumor and its location do not obstruct the pelvic canal as to preclude possibility of delivering a viable child *via naturalis*, the question must be decided whether it is safer to bring on premature delivery or allow gestation to continue to full term with the increased probability of having to resort to the more serious operation of Cæsarian section or Porro. If premature delivery be chosen, arrangements should be made to at once resort to abdominal section, if it should be found impossible to deliver naturally. If the tumor is confined to the cervix and is removable *per vaginam*, we believe that, in these days of antiseptic surgery, the tumor should be enucleated as soon as the

fetus is viable, and the after-result left to nature. The operation would naturally, but of necessity, be immediately followed by delivery. Should this occur, there would most likely be a living child, and the mother's chances, properly guarded against septic contamination, would be vastly better than in Porro or Cæsarian section.

Ovarian tumors may be so bound down to the pelvis as to interfere with delivery, or from their bulk so encroach upon the abdominal cavity as to endanger both mother and child. The question then arises between ovariectomy, aspiration of the cyst, and premature delivery. In the earlier months of pregnancy ovariectomy is undoubtedly called for, since there is a reasonable chance that gestation may continue without interruption. Later, however, the shock incident to ovariectomy, immediately followed, as it would likely be, by a labor as exhausting as at term, would so tax the vital powers of the mother as to make recovery quite uncertain. The question, then, of aspiration *per vaginam*, or through the abdominal wall, as the location of the tumor may indicate, will arise. Undoubtedly, the aspirator needle carries dangers with it, but we have here a greater danger that must be overcome, and whatever means of relief is adopted is not devoid of danger, hence it seems justifiable to remove by aspiration enough of the cystic fluid to admit of delivery prematurely or at term.

Vaginal cicatrices, the result of disease, or of injuries in previous labors, may so constrict the passage as to subject the maternal soft parts to severe and dangerous lacerations and materially retard labor. Whether it is better to wait for the normal relaxation of the tissues that precedes natural labor, or depend upon the smaller bulk of the premature fetus to facilitate delivery and lessen its dangers, every case must be decided by itself. It is quite probable that the dilatable condition of the tissues at term will more than compensate for the lessened size of the fetus in premature delivery.

Obstinate vomiting during the last months of pregnancy is not less frequent than it is portentous. At best it is an indication of reflex, high nervous tension. Here vomiting is nothing more nor less than a local convulsion, and it must not be forgotten that convulsions of whatever form gain force and gravity by frequent recurrence. The nerve centers become more responsive to the exciting cause. Each fit is a shock to the vital forces and increases the irritability of the brain. Vomiting is specially serious when ushered in with some great mental shock or distress, followed by gloomy foreboding and despondency. Here the nervous energy becomes exhausted, and there may follow rapid disintegration of tissue, marked emaciation, irritative fever, and delirium, pulse small and rapid, hollow eyes, hippocratic countenance, and death. When the vomiting is associated with, or secondary to, some functional or structural disease of liver or kidneys, the prognosis is specially serious. Unless the vomiting arises from some fully developed organic disease, a careful selection of the indicated remedies will usually keep it in control or wholly check it. If, however, our efforts fail in this direction, a speedy termination of gestation is demanded as a safeguard to the child as well as to the mother. In some instances the life of the child alone is put in jeopardy by allowing gestation to complete its term. The history of former pregnancies sometimes shows that there is an established habit of giving birth to dead children, the result of calcareous, fatty, or syphilitic degeneration of the placenta. In these cases the fetus often dies during the last few weeks of pregnancy, and it is quite possible to anticipate this event and deliver a living child. In order to accomplish this a close watch should be kept, and as soon as the movements of the fetus are observed to be growing weaker and less frequent, it having reached a viable age, delivery should be brought about. When in previous labors, notwithstanding a strictly vegetable diet, the child's head has been so firmly ossified,

hard and unyielding as to necessitate craniotomy or, at least, a delivery difficult and dangerous to mother and child, the anticipation of abnormal labor is quite justifiable. Where in several consecutive pregnancies hydrocephalic children have been born, assuming that this abnormal condition developed during the latter weeks of gestation, an early delivery has been resorted to with good results.

The methods of inducing premature labor are, many of them, interesting only as matters of history. The oxytocic drugs like ergot, cinnamon, quinine, caulophyllum, etc., while they are of undoubted value in augmenting labor pains when they have become weak and ineffectual, have proved impotent in arousing expulsive contractions of the normal gravid uterus in the later part of gestation, and cannot be depended upon in the case at hand. The same may be said of irritants applied to the mammæ* or cervix. A jet of water,† as hot as can be borne, or alternately ‡ hot and cold, directed against the cervix, has doubtless aroused uterine action, but this result is very uncertain, and not only may much valuable time be lost, but the treatment may provoke inflammation. If the cervix is hard and unyielding, a long-continued irrigation with warm water may so relax and soften the tissues as to facilitate more strictly surgical procedures. Electricity has been tried and found unreliable. Packing the cervix and vagina promotes a softening and relaxation of the tissues, and often incites labor pains. Antiseptically carried out, this method is safe to the mother, but it may be days before labor actually sets in.

The delay of a week or more after the hour selected as favorable to delivery, may abrogate, in great degree, the very results we wish to obtain. The child is daily increasing in size, and the mother getting weary. If it be a case of threatened eclampsia, the physician can hardly feel

* Frerichs and Scanzoni (method).

† Zwisch, 1846 (method).

‡ Tyler Smith (method.)

warranted in risking the possible long delay, while irritation of the packing might at any hour precipitate convulsions. Injecting air or water * between the membranes and the uterine walls is effectual and dangerous.

One instance came under my observation where an abortionist used water in this way, and the woman died before he could summon any of the household. The autopsy showed that air must have been forced into the uterine veins. Of late glycerin † has been used in this way and highly recommended.‡ The same risk of forcing air into the uterine sinuses pertains here as in the use of other liquids. Cases have been reported of acute attacks of nephritis and hepatitis, and of serious constitutional disturbances immediately following its use. This has been attributed to the absorption of the glycerin, but no such results attend the injection of a much larger amount of glycerin into the rectum, which is more especially an absorbent than is the endometrium. Its exosmotic properties are characteristic of glycerin, and it is probably never absorbed. When it has produced ill effects it has doubtless been forced into some open uterine sinus, as air may be, and thus found its way into the circulating blood current. When thus mixed with the blood, just what its effects are is not known, but judging from analogy with its known properties when used otherwise, we can suppose that it may have a disorganizing § effect on the blood plasma or corpuscles.

The exosmotic property of glycerin is doubtless what makes it more effectual than water or other fluids, when injected to bring on labor pains. It adds to its own bulk by extracting fluids from adjacent tissues. Since we see

* Known as Cohen's method ; first used by Schweighauser, 1825, Wasseige : *Annales Société Medico-Chirurgicale de Liège*, 1885.

† Pelzer method, 1891. Drs. Stanton, Palmer, and Hall. *Obstet. Soc. of Cincinnati*, April, 1893.

‡ Dr. C. A. L. Reed : *Obstet. Soc. of Cincinnati*, April, 1893.

§ Muller : *Münchener medicinische Wochenschrift*, 1894, No. 4.

that its use is attended with other dangers than attend the use of water, which is conceded to be unsafe, we cannot advise its use, although its ordinary prompt action commends it to us. Tents* made of sponge or other material, that will rapidly expand when moistened, have been used to dilate the cervix and incite uterine contractions. Their slowness and uncertainty in results, and especially the danger of sepsis from them, have led to their abandonment.

Barnes' or McLaine's hydrostatic bags have had extensive use. For the general practitioner they have the fault of being made of rubber, which is perishable material, and hence not to be depended upon. The greatest objection to their use is the liability, encroaching as they do upon the uterine cavity, of converting a head into a shoulder or transverse presentation, and thus necessitating the added danger of version to effect delivery.

Puncturing the membranes, so as to allow a slow escape of the amniotic fluid, is effectual, and, as far as the mother is concerned, ordinarily safe. It is not, however, after the manner of natural labor. Early rupture of the membranes is always looked upon as unfortunate, in that it makes the first stage of labor tedious, and places the child in more danger, especially if finally version becomes necessary.

The introduction of an elastic bougie† between the membranes and the uterine wall is a popular method. To be effectual, the instrument must pass up well to the fundus, and be retained *in situ* by a tampon of sterilized gauze. Uterine contractions often come on within twenty-four hours. If not, the bougie should be removed, the vagina and cervix to be thoroughly asepticized and another sterilized bougie introduced. After labor has become fully established, the case may usually be left to nature. The chief objections to this method are that it sometimes fails‡

* Known as Kluge's method ; first proposed by Brunninghausen.

† Krause's method.

‡ Pajot : *Annales de Gyn.*, 1890.

altogether; that with the utmost care, the membranes may be ruptured, and that the bougie may detach a portion of the placenta, causing hemorrhage, which in time may further separate the placenta from the uterine wall, thus endangering the life of the child, and making possible a concealed hemorrhage to a degree dangerous to the mother.

Whether any of the above methods or the following, which we prefer, are used, a most rigid asepsis must be observed. The vagina and cervical canal must be first cleansed with soap and water, and then with such potent antiseptic solution as may be preferred by the physician. The instruments and the hands of the operator must also receive thorough antiseptic treatment. To neglect this is to court disaster, and deserve defeat.

The method which we prefer is as follows:

If the case is not specially urgent, the patient having been aseptically prepared, pack the cervical canal and the upper part of the vagina as firmly as possible with sterilized gauze. We ordinarily use iodoform gauze for the cervix and sterilized for the vagina. This may be allowed to remain twelve hours, when on its removal the cervical tissues will usually be found soft and yielding and the os somewhat dilated. Now, everything having been prearranged, we are ready for effecting rapid delivery. The patient is fully anæsthetized; the vagina and cervix are again subjected to a thorough antiseptic cleansing, and the hand, also scrupulously aseptic, is passed into the vagina. The index finger is passed through the cervical canal, to be followed by one after another until the entire hand, to the thumb, has been introduced. The hand may then rest there a few minutes until the cervix has so yielded as to permit its easy movement, except during the uterine contractions, which will probably have now commenced. Now, the thumb will also be introduced and, with the fingers closed over the thumb, the hand will be slowly withdrawn through the cervix, only to be immediately re-

introduced. This time the fingers will be closed with the thumb over them, thus increasing the bulk of the fist. The closed fist will be again withdrawn through the cervix. This last procedure may be repeated until vigorous labor pains have set in, which will usually be within fifteen minutes or half an hour from the time the first finger passed through the cervix. In all this the utmost care must be taken not to use undue force, lest the cervix be lacerated. The aim should be to bring about dilatation through wearying the muscles, by means of steady and prolonged tension. The os being dilated to this extent, the membranes should be ruptured and the case left to nature, unless forceps or version be required to aid and expedite delivery. If the case demands immediate delivery, as in eclampsia or placenta prævia, the preliminary packing of sterilized gauze will be dispensed with, and immediate delivery, as above described, at once undertaken, if the condition of the os is in a condition to admit it. If, however, the cervix is firm and unyielding to the pressure of the finger, dilatation to the extent of an inch and a half may be accomplished by means of Goodell's steel dilator, and the process continued by the use of the hand as above described.

PRIVATE OBSTETRIC NOTES.*

BY

JOHN C. NOTTINGHAM, M. D.

I HAVE learned to avoid rules, as excluding good practical application of common sense, and to have a very great respect for Nature.

I have also learned to be ever watchful, and when there seems to be demand for heroic action it is always better to

* "Practical Physiological Philosophy."

pursue the course that Nature would, were she able, and be content with gentle but persistent efforts in the direction Nature would, were she not embarrassed; and try not to become more embarrassed than Nature is. (I use the capital "N" before the word "Nature," because I think of Nature as a divine attribute to human; and Nature's laws are immutable.)

I have learned that delivery may be accomplished with the forceps, even when the forceps do not lock, by using the finger or a folded cotton roll for a fulcrum with the hand, to steady the forceps at the lock. I have used both. To use the finger is not pleasant, but it has made me feel better when followed by success, and I have not been disappointed yet.

Mrs. A., as plump a little darling as ever suffered the pains of parturition, had a physician with her three days. Waters gone for the most part and head engaged in upper strait with vertex presentation; a very large head, and immovable. Pains fruitless though strong and normal. We waited for a time to reassure our patient and to observe the processes. Then after our patient and all the friends were fully prepared we endeavored to apply Hale's forceps, and, although the effort was made for near an hour, we failed to make them lock. We next tried Elliott's with the same result (my Hodge's being about seventy miles away). We determined to attempt the delivery with Hale's by the use of my finger for a fulcrum, and by patient and persistent effort for about two hours, accomplished the delivery of a child weighing $13\frac{3}{4}$ pounds (child moribund), without the slightest laceration except the posterior fourchette, as usual in primiparæ. This operation was repeated upon the same little lady about two years after with the same results.

Mrs. W., a very slight little woman, aged thirty-seven, in her second confinement, and ten weeks after her expected termination of gestation (I was called at the time of her

expected termination, found her having irregular and not expulsive contractions; gave her camic. r., and left word to call me if pains came regular as I described symptoms to her, but was not called until time indicated).

Then there were slight and ineffectual contractions, with a very large head, face presenting, no progress occurring, and no untoward symptoms not well controlled by the indicated remedy (which was secale), I delayed applying the forceps for eighteen hours, and then applied Hodge's because of the exceedingly large head, and after some delay commenced manipulation (I being unable to lock them), and by the aid of the patient's mother-in-law only, gave her chloroform about 11 o'clock P. M., from which time I labored on the forceps at every appearance of contractions and finally succeeded in locking the forceps and in the delivery of a beautiful living child, looking, after being dressed, as if three months old, at 5 A. M. following. Complexion clear, hair, finger and toe nails long, the head quite symmetrical and beautiful. The mother was not torn at perineum or cervix, and made an unexpected quick recovery. Quite as if nothing uncommon had occurred.

These two patients serve to illustrate to my own satisfaction the great utility and humanity of patience in excess of the rule, as followed by all accouchers within my acquaintance, and I know some who are well up in acquirements and favor with a large and intelligent community.

Mrs. L., nervous sanguine temperament, and very emotional, had been crowded through school and into the university. She was in a neurasthenic condition when married, suffering from periodic headaches and prostration; these being overcome, she became pregnant and suffered greatly with nausea the first four months, and after nausea ceased required much rest to be made comfortable.

Her mother, upon a visit, remarked that she could not be with her in confinement, but just as soon as the child was born she wished me to telegraph her and then she would

come at once. I informed her that if she cared for the life of her daughter, she would not visit her until the daughter had fully recovered, or about three weeks after her confinement, if all was well and no complications occurred.

The time came and labor progressed quite satisfactorily to myself, but the lady and her husband became unduly anxious and I was compelled to push my efforts in order to prevent their loss of confidence, which was becoming manifested. Inertia having appeared, I began giving chloroform to still the woman's importunities, and quiet the husband's fears of her suffering (?). Then after doing this I was driven to go farther and apply the forceps and deliver, which was done in a very short time—about an hour, and the mother did well, but was quite emotional and demonstrative, insisting upon informing her mother and father, that they might come and see her. The mother and father came the second day, and I was notified soon after their arrival and hastily repaired to the house to see what would be the result.

I found the young mother blessing the doctor, the nurse, and her husband, and wildly demonstrating her love for all, and her parents came in for their share. Nothing in moral force or persuasion that I was capable of could quiet her, and the following day, the death of the young mother occurred, a victim of the willful disobedience of her parents, her friends, and herself.

In this case, I think, I followed the rule and general teaching, with the first and only loss of a woman from post-parturient cause in all my experience, which demonstrates the necessity for quietude and restraint as a requisite to avoid impending calamities. "Experience is a dear school," but many, and it is surprising how many, will not learn without it.

When I am engaged in advance of expected birth, I always prescribe, not always medicine, but advice, such as I believe to be necessary to the patient, that she may under-

stand my necessities, her own requirements, the conveniences for the child, and the conduct best suited to the success of all concerned.

If objective or subjective symptoms are presented, I invariably prescribe the medicine suggested to my mind. Aconite, ars., bry., calc c., cimic. r., puls., sepia, secale, sulphur, are most frequently prescribed. Magnesium phos. when there exists vaginismus, a painful vulva and vagina, has been found curative.

If there have been any deformities in the family, or there exists evidence of such danger, I try to avert that danger and by this means accomplish the most good. If there is no history of deformity in the family (this means *mental* as well as physical deformity), and if there appears no error in the constitution of the patient, nor incompatibility between the husband and wife, which may give rise to deformity, if the uterine vigor, as expressed by the menses, be normal and gives evidence of good normal strength, I would not prescribe a medicine. If the reverse in either instance be true, for the first I would prescribe calc. c., 6 x, and sulphur 6 x, one night and the other morning, or alternate weeks if early in the pregnancy and the temperament should not contra-indicate these remedies. If a despairing or melancholy disposition, cimicifuga racemosa 1 x three times daily. If the mild tearful disposition should be present, I should prescribe pulsatilla 30, one dose at night till better, then stop, following which I nearly always find that calcarea carb. is well indicated. If the dark lines of sepia appear across the nose and around the eyes, and a sensitiveness to standing upon the feet, always not so well mornings, must walk or go fast for relief, I prescribe sepia 200, one dose.

I have found arsenicum, cocculus, symphytum, nux v., lycopodium, arnica, aconite, agaricus mus., and numerous other remedies indicated and given with apparent advantage.

If uterine inertia occurs, or rather weakness of the sexual system including the nervous system (and this I believe has its ætiology in one of the many forms of neurasthenia or sexual abuse), I have always found a condition of constitution with definite expressions or symptoms clearly defining the remedy or the cause necessary for cure. The phlegmatic or nervo-bilious temperaments suffer most frequently from uterine inertia and as a rule require *cimicifuga racemosa*, or *calcarea carb.*, and sulphur.

The diet should and must be adjusted to the patient and her condition; constitution and circumstances must of necessity be considered. The fruit diet, taught by popular treatises, is wrong and should be condemned as pernicious and injurious to both the mother and her offspring.

In painful contraction of the os, with symptoms of reflex phenomena in which we might anticipate extreme nervousness or convulsions, I have found *gelsemium*, 10 to 15 drops, dose every five to fifteen minutes as the urgency of the case might seem to require, to be very useful. Three or four doses have been sufficient in all cases coming under my observation, when administered at the first manifestation of the symptoms, which are produced by the examination if made with some force as if to dilate the os with the index finger. If there should be other specific indications, would prefer to rely upon the indicated remedy.

The mechanical means I rely upon, are, first, remedial agents whose action may be said to be mechanical, as *belladonna* extract applied to the os, or if *vaginismus* exists I use cocaine or full and forcible dilatation with the fingers. I have never found it necessary to forcibly dilate the os. I have never found it necessary to use injections except in hemorrhage caused by *placenta prævia*, in which case I use hot water with one teaspoonful of salt to one quart of water.

I use chloroform for anæsthesia when labor is very painful, especially if protracted to such an extent as to

worry or exhaust my patient, presumably in one-third of my cases.

I have resorted to manual extraction in very few cases and these have come to me as counsel after the attending physician had been engaged more or less constantly at the bedside for two or more days, or as happened in one instance, a midwife had drawn down an arm.

I use forceps in all cases of inertia of the uterus, delayed, or ineffectual contractions, there being no positive contraindication, perhaps in ten per cent. of my cases; always observing that dilatation is complete, if both os and external parts admit of delivery without laceration or serious injury to the soft tissues, and that undue hemorrhage is well anticipated. For ordinary cases I use Hale's pocket forceps, for extraordinary cases Hodge's are preferred.

For afterpains, *veratrum vir.*, *cimicifuga rac.*, *chamomilla*, *pulsatilla*, *sepia*, or *secale cor.* are frequently used in accordance with their several indications.

The treatment of the breasts after "stillbirth," is the same as for cake breast. *Phytolacca dec. root.* I find the best effects from a tincture I prepare myself. I usually give the same in dilution (3x) internally. *Ars.*, *cimicifuga*, *calcareo carb.*, *chamomilla* or other medicine if I discern clearly defined indications.

I have observed that infants nursing from a mother upon whose breast *phytolacca* tincture is being used, to have a large secretion of milk in their breasts, and in one case the enormous distention of those glands gave me much anxiety, but happily all passed off with the discontinuance of the application of *phytolacca* tincture to the breasts of the mother.

I always caution the nurse to use great care to cleanse the breasts well of the application before permitting the babe to nurse, but sometimes the nurse is careless, or the medicine is conveyed to the child through the milk becoming impregnated by absorption.

A PECULIAR MONSTROSITY.

BY

L. Z. BUCHHOLZ, M. D.

APRIL 19, about 6 A. M., I was called to assist Mrs. B., a healthy young Irishwoman, in her first confinement. On my arrival at the house I was told that "it" was there, that "it was not a baby at all, but a lump." This was rather surprising, as I had on a previous visit, about five weeks before, not only found a baby, but diagnosed the presentation as a breech.

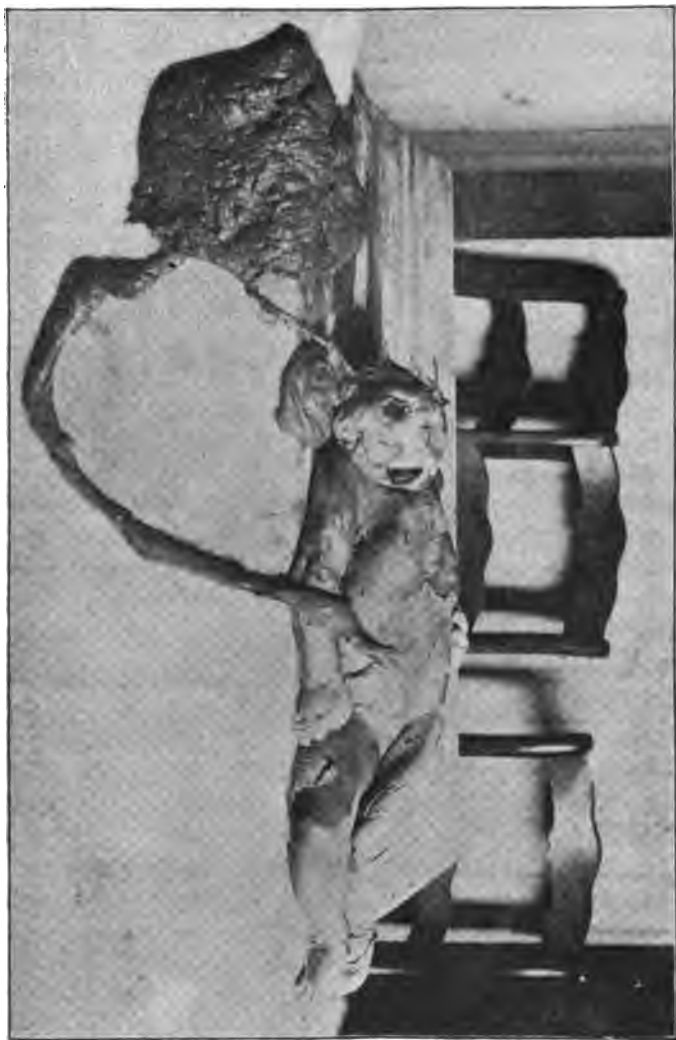
I took the "lump," which had been wrapped in an old gingham apron, to the light to investigate. I removed the cloth, and found that the "lump" consisted of the unruptured membranes in which floated the child. The membranes were in an advanced stage of decomposition. On questioning Mrs. B., I found that she had not felt life for four weeks. She had not been well, had frequent chills, and noticed a constant bloody discharge from the genitals. She had been in labor all night, but as the pains did not seem severe enough, had not sent for me. Only the few pains which accompanied the expulsion of the "lump" were severe.

I asked and received permission to take the child with me, so I took it to the New York Medical College and Hospital for Women to serve as an object lesson in obstetrics.

On laying open the sac several astounding discoveries were made. The head was small and misshapen, resembling closely that of a cat, especially the eyes, nose, and forehead. The parietal bones were very small, and a large lump protruded at the sagittal suture and posterior fontanelle. This lump, which was very soft and covered with hair, was attached by a cord several inches long to the

margin of the placenta. The umbilical cord, which was very long, was wound twice around this tumor close to the head, and was then inserted at the margin of the placenta. The body was of normal size and development, except that there was a finger missing on the right hand. The whole child was much decomposed. The pathologist, Dr. William Storm White, being in the building at the time, I asked his opinion. He cut into the fleshy mass and found it to consist of brain substance. The small cord which connected the mass with the placenta contained blood vessels. No further dissection was made, and the fetus was put into alcohol to preserve it.

Now, how long was the child dead? I should presume since Mrs. B. had her first violent chill and ceased to feel life, some four weeks. And the cause of the child's death? Was it from obstruction of the cranial circulation due to the constriction of the tumor by the enveloping umbilical cord, or was the placenta detached by traction on the smaller cord, thus asphyxiating the child? Recently, I saw several cases reported where a tumor was found in the same locality, but none had the attachment to the placenta and none survived. That this child could not have been born alive is evident, for either the cord must have ruptured in the downward passage of the child, or the placenta would have been dragged down with it. That the presentation was a breech can be seen in the illustration. From the position of the smaller cord it could have been but one of two things, a breech presentation, or a head with a placenta prævia. This brings me to the symptom which went the rounds of the medical journals about a year and a half ago, namely, tenderness over the fundus uteri on pressure in breech presentation. I have had five such presentations since, and I have looked for this symptom in each case, but found it conspicuously absent. We are likely to get tenderness in many of our cases if we press hard enough and long enough.



In conclusion I would say that Mrs. B. made an excellent recovery. She had an ill-smelling discharge for several days, but no fever of any kind, no trouble with her breasts. She was out of bed on the sixth day, and on the tenth went personally to the Foundling to get a baby to nurse.

APPLICATION OF THE FORCEPS.*

TRANSLATED BY

B. F. UNDERWOOD, M. D.

(Continued from p. 467.)

PRESENTATION, INTRODUCTION, AND PLACING OF THE BLADE.

The right hand grasping the handle presents the right (notched) blade to the palm of the guiding hand. It is introduced in the same manner as in the occipito-pubic position and is lowered obliquely toward the radial border of the left forearm. This movement will direct the axis of the blade in the line of the axis of the guiding hand. It should not be forced, but should be guided and directed according to the indications and sensations of the guiding hand. The presentation is sufficient for the time, when the beak is even with the ends of the fingers and consequently has passed the occipital convexity. Then the fenestra will have entirely disappeared and the forceps will be properly applied as regards the long diameter of the cephalic ovoid, but, like the guiding hand, it is too low, not enough on the side.

It is to be brought upon the parietal eminence and upon the cheek by the action of the right hand. The handle is elevated, to the right of the median maternal plane, with

* From the French of Professor Farabeuf and Dr. Varnier.

the hook directed upward and to the right of the mother. Simultaneously lower the handle, for the beak must penetrate still further; carry it back toward the left thigh, for the parietal eminence throws the blade to the right; finally twist it lightly and bring the hook, which is turned obliquely, to point directly to the left of the mother; this will cause the blade to slip forward and glide over the ear; this action, complex and triple, forces the blade to pass beyond the fingers and to insinuate itself beyond the index finger and the ear, in the line of good taking, altogether on the side.

At the same time, the crossing of the branches is effected and the guiding hand is withdrawn.

Fig. 20.—Vertex, in position directly occipito-sacral. The coccyx is overcome by the horizontal traction; the



FIG. 20.

occiput being in the soft basin, dilating principally the posterior portion of the perineum (ano-coccygeal). The handles cannot yet be notably raised; they may even be lowered for a moment to disengage the forehead outside of the pubic vault.

ARTICULATION OF THE BRANCHES.

What can be seen of the forceps, the handles of which are exactly in the horizontal plane (and not lightly raised

above as in the occipito-pubic position) is median, that is to say, at equal distance from the thighs, equally separated. The two hooks are turned directly toward the sides, that of the right branch toward the left, that of the left branch toward the right. The right branch crosses over the left branch, between the pivot and vulva; the two hooks being directly in the same plane, the field of the articulating portions being exactly applied; the two blades being equally introduced, the notch is to the right of the pivot. You have only to approach with force, the handles held in the ends of the fingers to engage the pivot in the notch.

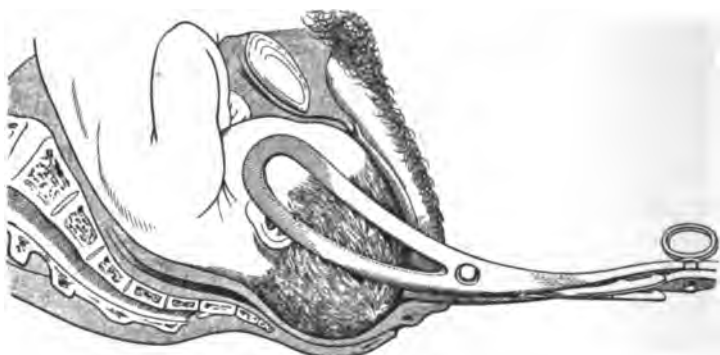


FIG. 21.

Then, draw the handles closer together and hold them in the left hand, the blades are exactly applied to the head, while the pivot is screwed down by the right hand. The verification is the same as for the occipito-pubic position.

Fig. 21.—Vertex, direct occipito-sacral. The occiput being in the soft basin and the sub-occiput on the coccyx, the head being turned a little to bring a frontal eminence under the symphysis, the forehead in its turn, is outside of the bony pelvis. It is seen that the disengagement had been hindered by a premature elevation of the handles of the forceps and which would be facilitated by a slight momentary lowering of the instrument.

EXTRACTION.

It now remains to draw the head into the axis of the inferior strait to have it engage completely. Therefore, it is necessary to draw at first a little downward, then horizontally to accentuate the flexion, to the end that the occiput is forced against the coccyx distending the posterior portion of the perineum and is held fixed without being able to return through deflexion (figs. 19 and 20). Afterward traction is to be made decidedly downward, toward the knees, to the end of bringing the naso-frontal notch under the symphysis, the forehead into the pubic vault (fig. 21) while the occiput will carry to the maximum the retropulsion of the coccyx and distend the perineum posteriorly. It is necessary to guard against making downward traction too soon, and allow the occiput to return, for that would deflect the head. It is the largest circumference of the cranium, the occipito-frontal, which is to be brought through the coccyx-pubic strait. It will be understood, therefore, that it will require more time and more force, than in the occipito-pubic position, to bring the sub-occipito-frontal circumference through.

If the forceps of Levret are employed, it will be remembered that to make traction in the proper direction, the neck of the blade should be grasped (to the end of acting in the axes of the blades) below the handles, which are placed at an angle with that axis proportional to the curvature of the instrument. The forceps are to be taken in the upper part, for example in the full left hand (hand of traction), between the pivot and the vulva as near as possible to the blade, to the end, in drawing to lower, to support; at the same time the end of the handles will be held below in the full right hand (hand of flexion and constriction). With the left hand alone, traction is to be made as has been said before; first horizontally to definitely engage the occiput in the soft basin, then a little lower to bring the forehead outside of the pubic vault.

Fig. 22.—Vertex, position directly occipito-sacral. The forceps are elevated, the flexion of the head is increased, and the occiput having dilated the anterior, after the

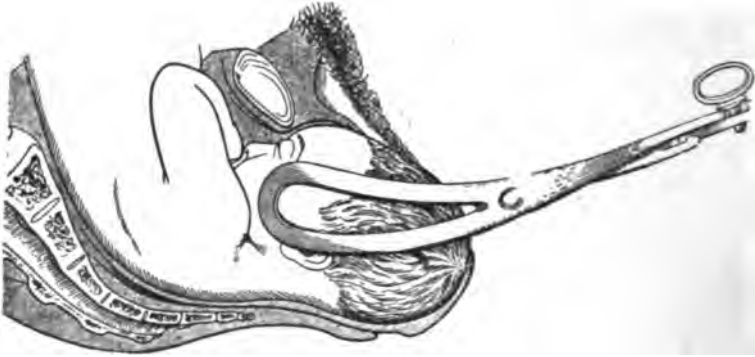


FIG. 22.

posterior portion of the perineum, is retained only by the vulvar fourchette.

When the head is freed from the inferior strait, bringing the cranium into the soft basin, the forehead outside of the pubic arch, and the root of the nose under the symphysis, the enormous distention which the occiput imposes upon the posterior portion of the perineum will be seen in fig. 21. Traction downward should now be discontinued for fear of injuring the pelvic floor. It is necessary now to bring the cranium or rather the occiput through the soft basin, to engage it in the vulvar strait and finally to deliver it.

The head cannot descend further, being retained by the perineum, which is already distended to the utmost; the face and the nose can progress no further. The bridge of the nose, fixed under the symphysis, serves as the center of the movement of flexion which is produced by raising the forceps, with the right hand, energetically continuing traction with the left hand. Through this flexion, the occiput alone advances in the soft basin, gliding with an enormous

distention of the perineum, over the anus, the posterior perineum to the anterior perineum where the vulvar ring arrests its progress (fig. 22).

Fig. 23.—Vertex, position directly occipito-sacral. The forceps, greatly elevated, have brought the occiput outside

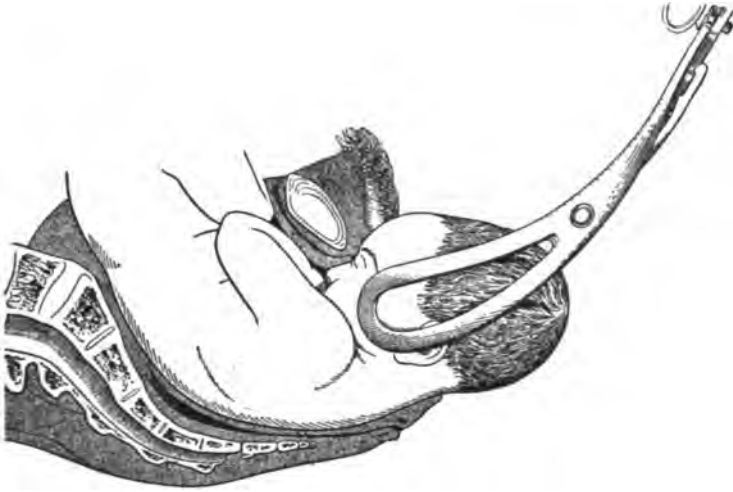


FIG. 23.

of the vulva; the perineum is retracted; it is only necessary to let the head drop to bring the face outside.

At this time, the cervic-dorsal region corresponds to the coccyx; the vertex appears in the vulva nearly the entire length of the sagittal suture; the parietal eminences, which cannot pass without effort nor particularly without danger, begin to fatigue the sides of the orifice. It is there that the flexion will be necessarily exaggerated, by the erection of the forceps which remain always lower than in the occipito-pubic position; the anterior perineum, the vulvar fourchette, distended to the maximum, retire backward with or without lacerating (fig. 23), releasing the grand occipito-frontal circumference, expelling the occiput which, if the forceps are lowered, immediately falls in deflection and

carries to the exterior the forehead and face, the one under the anterior vulvar commissure, the other behind the pubis—all these maneuvers should be executed with the greatest deliberation.

SAME POSITION OF THE VERTEX, OCCIPITO SACRAL, IN-COMplete FLEXION.

In this case, which is shown in fig. 24, the forceps should be applied the first time to flex the head.

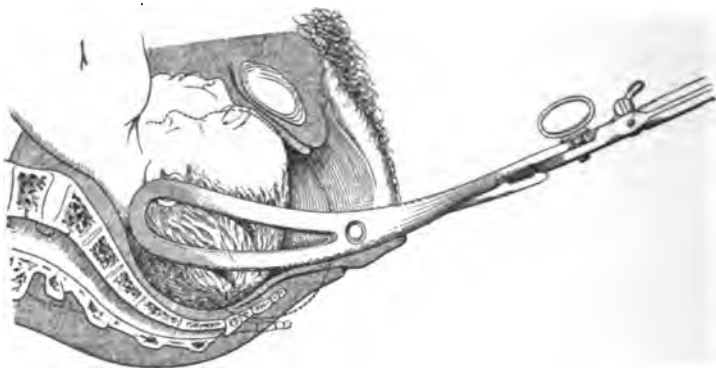


FIG. 24.

Fig. 24.—Vertex not flexed in direct occipito-sacral position. Forceps applied at first upon the mastoids to produce flexion, position of dotted head.

In this position the blades will not be placed upon the parieto-malar regions, since that is impossible, but back of the ears. In making traction, flexion should be produced (head having dotted outline). But as the grasp of the forceps is not solid, not being regular, the blade will slip and lose its hold. Traction must be arrested as soon as the forceps are felt to slip and the instrument removed, after having been disarticulated, as should always be done. A useful work will have been done. The head is not yet engaged in the strait, but it is flexed, that is the capital

point. For flexed, it may engage spontaneously, or being grasped by a second application of the forceps, regularly this time, since the parieto-malar line is now in a position to be grasped.

In general, one need not lose any time in waiting for spontaneous accouchement, between the two applications, and the first, as soon as the effect is obtained, is to be followed immediately by the second, made under the same conditions as when the head is perfectly flexed.

SURGICAL TREATMENT OF UTERINE FIBROIDS AND A REPORT OF TWELVE SUCCESSFUL CASES.

BY

FLORENCE N. SALTONSTALL, M. D.

THROUGHOUT the field of gynecology there is no subject calling forth so much interest at the present time as uterine fibroids.

No branch of gynecology is receiving so much attention and in none are more radical changes taking place, not only in the interpretation of the importance of fibromata, but also in the method of treatment. Their ætiology is still an unsolved problem, all authorities agreeing that in spite of the mass of theories presented no definite conclusions have as yet been reached. To the careful worker, large opportunities are here presented for original investigation.

Clinically, the views concerning them have undergone marked changes within the last few years. No longer are fibroids regarded as innocent growths, "benign tumors" of but little import, to be left to the efforts of kind nature to cure when and how she may. A fuller understanding has

come of their possibilities as regards the health and life of the patient and, co-incident with this, better methods of operative treatment.

The time is not far distant when, owing to the fearful mortality, the abdominal surgeon refused to operate upon uterine fibroids—and when, owing to a mistake in diagnosis, he found, upon opening the abdomen, that the tumor was fibroid instead of ovarian ; in dismay, he quickly closed the abdomen, lamenting his unfortunate mistake.

By transitional epochs, amid fierce discussions, have been evolved operative measures for their relief until the present time shows a technique so perfect that a uterine fibroid can be removed with as little risk to the patient's life as an ovarian cyst.

The scope of this paper will include :

First.—The presentation to the general practitioner of the best and latest views regarding the clinical history of uterine fibroids and the indications for operative treatment, and,

Second.—The surgical treatment with report of cases.

The gynecological surgeon is as dependent upon the hearty and intelligent co-operation of the general practitioner for the successful issue of his fibroid operations as he is for his operations for cancer. Physicians have learned to send their cases of epithelioma and carcinoma *early* for operative treatment, before the patients have become exsanguinated by hemorrhages and septic by absorption of foul discharges—with the resulting better statistics and longevity for the patient. And when physicians will likewise send cases of fibroids *early* for surgical measures, before the patients have become nervous wrecks from hemorrhage and pain, then will the results be alike creditable to the specialist and the general practitioner.

Clinically the relative frequency of fibroids is interesting. In looking over my gynecological records from January, 1884, to May, 1895, I find that out of 220 cases treated at

my clinic, 7 suffered from fibroids, or a little over 3 per cent.—out of 260 cases treated in private practice, 19 were fibroids, or a little over 7 per cent., and out of a total of 480 cases treated 26 were fibroids, or 5.4 per cent. Thus is shown a marked disproportion in the frequency of fibroid growths in the social condition of the patients, those in the better walks of life showing more than double the number. All of the 26 patients came for treatment for the relief of symptoms of greater or less severity induced by the presence of fibroids.

The size of the tumor varied from that of a goose egg to that producing visible abdominal enlargement and reaching various points at or below the umbilicus. Of the 26 cases the youngest was twenty-six years and the oldest ninety-two years. Two were between the ages of twenty and thirty years, 10 were between thirty-five and forty, 9 between forty and fifty, and 5 were past fifty years. Thus the greatest frequency was shown to be between thirty-five and fifty years—19 out of the 26 being between these ages. Of the 5 past the menopause, no evidence could be gained that any of the growths had decreased since the cessation of menstruation. In three of them, on the contrary, repeated examinations and the symptoms of the patients showed increased size.

The oldest patient, whose age was ninety-two, presents rather a remarkable history. I was called to see her for the relief of complete prolapsus of the vagina; upon examining to determine the cause, found a large fibroid filling the pelvis and extending 10 c. m. above the pubes. Owing to the relaxed and flabby condition of the senile tissues, the fibroid could be clearly mapped out. It was free from adhesions and gave rise to but few symptoms, except the prolapsus and bladder irritation. She gave a well-authenticated history of having had an ovarian or "fluid tumor" of the right side diagnosed over fifty years previously. Repeated consultations were held and finally

she was prepared for operation, but her courage failing her at the last moment, she refused to be operated upon. There was a spontaneous disappearance about the menopause and freedom from pelvic manifestations until the present time, a period of over forty years. This is the oldest recorded case of uterine fibroids that I have been able to find.

As to the number of children borne by each patient, out of 26, 9 were sterile, 11 had one or two children born in early married life, then a long period of sterility followed by evidence of tumor, and 6 had three or more children. The majority of the cases showed either total or long continued sterility, demonstrating the greatest frequency of fibroids in sterile women, and the perversion of normal functional activity into pathological channels.

As to symptoms, all the patients had pressure symptoms, backache, bearing down, or reflex pains through the pelvis and abdomen; except one, in whom the growth was centrally located and without adhesions. These symptoms varied from a sense of discomfort to actual inability to walk, or perform the ordinary duties of life. All the patients who had not reached the menopause with the exception of six, had hemorrhages either in the form of menorrhagia or metrorrhagia.

As a result of pathological study and clinical observation certain deductions can be accurately formulated.

1. That fibromata are, as a rule, *growing* tumors—usually of slow growth.

2. During their process of evolution, attacks of local peritonitis are frequent, producing adhesions binding them to the bladder, the rectum, the omentum, and the intestines.

3. Their presence, almost without exception, produces weight and bearing down sensations with various reflex disturbances in the back and abdomen, increasing in severity with growth of the tumor and the proximity of the neoplasm to important structures.

4. Hemorrhages, either metrorrhagia or menorrhagia, sap the vitality of nearly four-fifths of the patients having fibromata.

5. That they are likely, any time in their growth, to undergo degenerative changes, particularly after the menopause, when the patient's vitality is weakened and resistant power is lowest. Besides the usual degenerative processes that take place within the tumor, there may be infection with the result of pus formation in either the uterus or appendages, or sloughing, or degeneration into carcinoma.

6. As a result of compression upon neighboring organs or obstruction in circulation, structural changes take place in vital and distant organs, notably in the urinary system, producing sometimes a fatal pyelonephritis; in the cardiac muscle, resulting in fatty degeneration or brown atrophy.

In the face of this evidence, what course shall be pursued in the treatment of fibroids? There is no evading the accumulated evidence that the tendencies in the course of a fibroid are toward grave complications and disaster. Every fibroid should be so regarded and treated accordingly. If the tumor is small, giving rise to no symptoms and not growing, the patient should be placed under the best possible conditions and kept constantly under observation. In all other cases, early and active measures should be instituted at once. Before taking up the treatment, one word about the necessity of care in diagnosing fibroids. Though in many cases it is comparatively easy to make the diagnosis of fibromata, it is always well to bear in mind that growths diagnosed as fibroids may be of still more serious character. They may be solid growths of the ovary, cancer of the ovary or uterus, or pyo-salpinx, with induration of the pelvic roof. At times it is most difficult to differentiate pus tubes with adhesions from a mass of small uterine fibroids, projecting through the pelvis and bound down by adhesions. In both are found nodulated masses distributed through the pelvis. Only careful bimanual examination

and close investigation into the history of the patient will make clear the diagnosis.

I consider *surgical* measures the only ones to be advised in the treatment of these neoplasms. Medical treatment has not given the results sufficient to warrant our waiting for the slow and uncertain action of medicine in these serious growths. As for the electrical treatment, the patients, as a rule, have come to the surgeon after being treated with electricity in a worse condition than if they had not had the treatment; the danger of septic infection is greater and the adhesions are denser than they otherwise would have been.

Indication for Operation.—The indications for operation are: a growing tumor, even if it is only moderate in size; hemorrhages either at the menstrual period or irregularly; pain and pressure symptoms and the presence of pyo-salpinx.

The size of the tumor plays but little part in the decision as to its removal, a small tumor often producing more serious symptoms than one of larger growth. It depends upon its position in the pelvis and its proximity to the endometrium. The dangers of the operation increase in direct proportion to the size of the tumor, the age of the patient, and the reduction of vitality by repeated hemorrhages.

The fatal cases are usually the neglected ones, or cases come for care that are no longer operable, in which simple and satisfactory results could have been obtained a few years previously. One such case came under observation during the past year. Five years before coming for consultation, the patient had had uterine fibroid diagnosed; it was small and gave comparatively little discomfort. She was advised to have nothing done; after five years of neglect I found her condition most deplorable; the tumor had not only grown upward into the abdominal cavity, but downward into the pelvis, accurately adapting and insinuating itself into the curves of the pelvis. It was impossible to lift the growth or pass the finger at any point between

it and the bony wall of the pelvis. How the bladder and bowels performed their functions was a marvel. She was an anæmic, nervous wreck from long-continued pain and hemorrhages, and when told that an operation at this stage would be a formidable one, she had neither the moral courage nor physical strength to meet it. An operation when the tumor was first discovered would have been a simple procedure, the years of suffering avoided, and her life prolonged.

Operation.—Under improved technique and early operation, it is interesting to watch the reduction in the mortality of fibroid operations. Burnham and Kimball's statistics in the early fifties show a mortality of eighty per cent. This was gradually reduced from sixty to thirty-five per cent., where it stood about ten years ago, at the beginning of the era of advances in abdominal surgery; since then it has gone on progressing, until now it is almost nil.

As to the methods of operation, no plan can be chosen for all cases alike; each one must be carefully individualized and the method most appropriate chosen for it. There are six well-indorsed methods before the profession for operative treatment for uterine fibromata:

1. Removal of uterine appendages. (Hegar, Tait).
2. Tying of uterine arteries through the vagina. (Franklin Martin).
3. Cœlio-myomectomy, removing the tumor, leaving the uterus intact. (Martin of Berlin).
4. Removal of sub-mucous fibroids through the os uteri and vagina.
5. Supra-vaginal hysterectomy.
 - (a) Intra-peritoneal stump. (Schröder, Goffe, etc.).
 - (b) Extra-peritoneal stump. (Krobach, Eastman, etc.).
6. Total extirpation.
 - (a) Cœlio hysterectomy. (Polk, Krug, etc.).
 - (b) Vaginal hysterectomy, morcellement. (Péan, Ségoud, Doyen).

(c) Cœlio-calpo hysterectomy or combined operation; separation of cervix from vagina by vaginal route and removal of tumor through abdominal incision.

1. The removal of uterine appendages, as originated by Tait and Hegar, for the control of uterine fibroids, was originated upon the theory that tumors ceased to grow after the menopause. It was hoped that by inaugurating an artificial menopause to bring about an atrophy of the neoplasm, but it is abundantly proven that the menopause does not modify the growth of these tumors, hence the operation does not fulfill the required indications, and it will be but a short time before it is relegated to things of the past.

2. The tying of the uterine arteries may occasionally be of value when we have a bleeding uterus, and for some reason, either through weakness of the patient or organic lesions, it is impossible to perform a radical operation. This method may offer some hope of relief; it must always be regarded, however, in the light of a palliative measure.

3. Myomectomy, as originated and developed by Martin of Berlin in 1878, though limited in its sphere of work, still has its clear-cut and most important indications. In conservative measures, when in young women, it is desirable to maintain a functioning uterus and appendages, and with otherwise normal conditions there exist one or two sub-peritoneal fibroids, this is the method to be pursued. When operation is indicated for fibroma in women under thirty-five years, a careful bimanual examination should always be made to determine if myomectomy, instead of hysterectomy, cannot be performed.

Indications for Myomectomy.—(a) When the uterus possesses only pedunculated tumors.

(b) In tumors, having a well-developed fibrous capsule, which are neither so large nor numerous, nor so placed as to require in removing such direct damage to uterus or its blood supply as will unfit the organ for proper functional activity.

If carefully performed, and the uterine incision closely united by buried layers of fine catgut, with a Hagedorn needle, there is no more danger of hemorrhage in myomectomy than in hysterectomy.

4. For sub-mucous and interstitial fibroids that have become sub-mucous, removal through the cervix and vagina is the only method to be employed.

5. Though a few cases of fibroids may be treated by myomectomy or by removal through the cervix, the great majority of cases requires the removal of the uterus or a *hysterectomy*. Among American surgeons, in the last few years, supra-vaginal hysterectomy, with either the extra-peritoneal treatment of the stump or the intra-peritoneal treatment has been, and is still with many, a favorite operation. The endless discussions concerning the treatment of the cervix show that neither method is perfect. It is no more surgical to leave a stump to slough in the lower angle of the abdominal wound, with, in time, an almost invariable ventral hernia, any more than it is surgical to run the risk of septic infection through the cervical canal in the intra-peritoneal method.

6. A better, cleaner, and more surgical procedure is the total extirpation of the entire organ. Polk and Krug demonstrated what perfect results could be obtained by the abdominal method. The French surgeons, by their brilliant statistics, have demonstrated the utility and superiority of the vaginal route. It is, in my opinion, the method of the future in dealing with uterine fibroids. As we become accustomed to vaginal methods, there will be but few fibroids that we cannot attack by the vaginal route, and as we are perfected in the technique, it is amazing the ease and rapidity with which we can work, the readiness with which we can bring down pelvic tissues, separate adhesions, remove appendages with but little loss of blood and scarcely appreciable shock to the patient.

In case the tumor is very large or fixed high in the pel-

vis, the combined method is then chosen ; it is the work of but a few moments to rapidly separate the cervix from the vagina, enter the anterior and posterior peritoneal *culs-de-sac*, then make the abdominal incision, and work from above downward. By making the vaginal opening first, we do away with that, which by the abdominal method alone, is the most difficult part, *i. e.*, the work deep in the pelvic cavity, and we run less risk of wounding the rectum posteriorly, and the bladder and ureters anteriorly.

From January, 1894, to the present time, I have operated upon twelve cases of uterine fibroids, all with successful results. In every case I have aimed to perform the operation by the vaginal method alone, if possible. In looking over the accompanying table, seven were performed by the vaginal route by morcellement, four by the abdomino-vaginal method, and one through the cervix. Of the seven cases performed by morcellement, complications of adhesions or diseased appendages were encountered in varying degrees in each case. The four cases by the abdomino-vaginal method were begun by the vaginal route, but completed by the aid of the abdominal method. In looking back over these cases, complicated though they were, yet were similar cases to be presented in the future, I should make still greater efforts to manage them by the vaginal method alone. In one case, No. 5 in the table, the difficulty was in the character of the growth, which was of the intra-ligamentous variety, involving both the broad ligaments transversely, making it impossible to draw the tumor down for the necessary morcellement, and equally difficult to tie off the broad ligaments when working from above. It was a very tedious and complicated case. In case No. 7, the difficulty was owing to the size of the tumor, which reached almost to the umbilicus, and the number of adhesions. In case No. 9, complications were many and troublesome ; the patient, a workingwoman, was almost bedridden from repeated attacks of pelvo-peritoni-

tis and long-continued metrorrhagia. Besides a fixed retroverted fibromatous uterus, there was an ovarian cyst reaching midway to the umbilicus. After removing the uterus and fibroids by morcellement, I endeavored to remove the ovarian growth by the vagina, but the tumor was fixed so high in the pelvis that it was necessary to make an abdominal incision, separate the adhesions, evacuate the cyst, and ligate from above, while the clamps remained *in situ* on the broad ligaments. In case No. 11 the obstruction to the downward depression of the uterus was a large sessile sub-peritoneal fibroid situated on the anterior wall of the uterus. Its longest axis was transverse, so placed that it could not be drawn below the pubes. After the vaginal separation was completed, I enucleated the tumor through an abdominal incision, then resumed the morcellement by the vaginal way, the uterus with a mass of small fibroids being quickly drawn, clamps applied, and the operation brought rapidly to a close.

Case No. 12 was rather unique. It consisted of a number of small fibroids in the posterior wall of the uterus, and one large polypoid fibroma of the body of the uterus, projecting from the cervix and filling the vagina to the vulva. Its longitudinal circumference was twenty-four centimeters and transverse eighteen centimeters. After removing the vaginal portion of the growth, which enucleating the smaller interstitial growths through the very patulous cervix by the process of *évidement*, I accidentally entered the peritoneal cavity, and quite a smart hemorrhage took place. I immediately everted the uterus through the cervix, made an incision into the anterior *cul-de-sac* above the cervix to correspond with the opening posteriorly, drew the broad ligaments well into view, and clamped them. I removed the uterus through the cervical canal, leaving only the vaginal portion of the cervix. Drainage was maintained through the widely opened cervix until cicatrization took place. The patient made an uninterrupted recovery.

Operative Technique of Morcellement.—In performing morcellement, I have taken what I consider the best features from Péan's, Ségond's, and Doyen's methods, modifying the technique to meet the emergencies of the individual case. I prefer the circular incision at the cervico-vaginal junction, though Ségond's theoretically may afford more protection to the ureters. He makes two additional cuts after making the circular incision parallel to the lower border of the broad ligaments, thereby hoping to gain more room. I have operated by the circular incision twenty-five times, and have never injured a ureter. I am careful to keep very close to the uterus, my incisions as well as blunt dissections being toward the axis of the uterus. The distance of the circular incision from the external os will vary in different cases, dependent upon the size and shape of the cervix. Care must be exercised that it is not made too high, for fear of injuring the bladder, nor so low upon the cervix as to miss the "line of cleavage" between the uterus and the bladder, thereby greatly prolonging the operation. I prefer to enter the anterior *cul-de-sac* first and afterward the posterior. My next step is the hemi-section of the anterior wall of the uterus, and, by grasping section after section of the anterior wall with forceps, gradually draw the uterus downward, and avert it anteriorly until it is outside the vulva. In most cases of fibroids, morcellement is necessary before this can be accomplished. I prefer not to apply the clamps to the broad ligaments until the morcellement is completed and the uterus outside the vulva, the downward traction being enough to control the hemorrhage, if the broad ligaments, or the peritoneum adjacent to them, are not accidentally cut, making morcellement practically a bloodless operation.

When the uterus is retroverted, or the tumor mass more accessible through the posterior wall, it is then advisable to perform a hemi-section of the posterior wall instead of the anterior. I have found the posterior hemi-section also

advisable where the fibroid mass arises from the anterior wall or fundus of the uterus and rests against the pubes, so that it is impossible by traction upon the cervix to draw it down. Then firm traction upon the two lateral halves of the posterior wall of the uterus as high as the fundus will succeed in dislodging it and bringing it into the field of operation for the necessary morcelllement. It was this method that aided me materially in overcoming the difficulties in the case of fibromata complicated by ovarian tumor, case No. 11 in the table.

I always clamp the broad ligaments from above downward, holding the ligament between the thumb and forefinger of one hand that no intestines be caught in the bite of the forceps, and slipping the forceps down over the ligament with the other. I usually employ two clamps for each broad ligament, to be sure that the uterine and ovarian arteries are securely caught. I have used clamps in all the cases but two, and these were by abdomino-vaginal method, in which the ligaments were tied from above with catgut. Clamps are desirable at the time of operation, inasmuch as they are quickly applied, lessening the time of operation, and, when properly placed, afford absolute protection from hemorrhage. In the after-treatment, however, the sloughing incident to their use is unsurgical and unclean. In the evolution of the operation of morcelllement clamps will be given up for a better method. Ligatures do not fully meet the indications, for the reason that the ligaments are stretched, many times almost to the vulva, for the necessary clamping and ligating, and upon receding, after being tied, the ligatures are very apt to slip.

In six cases, the appendages were removed with the uterus, and in six they were allowed to remain. In those patients where the appendages were removed as well as the uterus, the after-results were much better. Their convalescence was characterized by an absolute absence of all pelvic symptoms, and was remarkable for its ease and

NO.	NAME AND AGE.	SOCIAL CONDITION.	DATE.	CLINICAL HISTORY.	DIAGNOSIS.	OPERATION.	CONVALESCENCE.	RESULT.
1.	Miss M. S., æt. 38.	Single.	Mar. 11, 1894.	Menstruation every three weeks, persisting fourteen days; progressive weakness and emaciation; inability to pursue occupation of teacher.	Interstitial-subperitoneal fibroids of the uterus.	Vaginal method. Uterus removed by morcellment. Ovaries and tubes removed. Clamps used.	Clamps removed in thirty-four hours; recovery uneventful; pulse 70-80; temperature once 101. Diarrhea complicated recovery.	Recovery.
2.	Mrs. S. G., æt. 43.	III. Para.	May 18, 1894.	Constant pain in abdomen, back, thighs; inability to work; bedridden.	Subperitoneal fibroid large, hard hyperplastic uterus fixed by adhesions; enlarged and prolapsed left ovary.	Vaginal method. Uterus curetted and os closed with catgut; both ovaries removed. Clamps used. Large hematoma of left ovary.	Clamps removed in thirty-six hours; recovery uneventful; pulse 90-100; temperature once 102.2. Discharge in three weeks.	Recovery.
3.	Mrs. J. A. H.,	II. Para.	Apr. 22, 1894.	Inability to walk or stand owing to pain in left side and back.	Subperitoneal fibroid and large adherent ovaries; uterus fixed by adhesions.	Vaginal method. Adhesion posteriorly rendered operation difficult. Doyen's clamps. Morcellment.	Clamps removed in thirty-six hours. Fourth day after operation, on attempting to move the bowels, recto-vaginal fistula established; gradual closure.	Recovery.
4.	Mrs. A. J.,	II. Para.	Oct. 9, 1894.	Severe sacral back-ache, constant aching through pelvis, increased through menstruation; menorrhagia.	Multiple, interstitial subperitoneal fibroids of the uterus.	Vaginal method. Clamps, tubes, and ovaries not removed. Morcellment.	Uninterrupted, temperature normal throughout convalescence.	Recovery.
5.	Mrs. J. S., æt. 41.	I. Para.	Dec. 30, 1894.	Pressure symptoms, pain in both ovarian regions, worse on left side, making walking painful and difficult; menstruation normal.	Multiple, subperitoneal interstitial fibroids of the uterus.	Vagino-abdominal method. Morcellment found impossible, due to great size of tumor, and its extension into both broad ligaments, rendering it impossible to draw uterus down to work upon it. Vaginal attachments severed first, followed by celiotomy. Long and tedious, due to adhesion and shortened broad ligaments. Thorough gauze drainage. Ovaries and tubes removed.	Good, except for mural abscess in abdominal walls.	Recovery.
6.	Mrs. A. E. W., æt. 50.	I. Para.	May 3, 1894.	Bedridden for three years; multitude of nervous manifestations; under constant medical attention for five years.	Multiple, subperitoneal, and interstitial fibroids.	Exploratory incision revealed tumor so imbedded in pelvis that vaginal hysterectomy chosen. Morcellment. Doyen's clamps.	Clamps removed in thirty-six hours; recovery uneventful.	Recovery.

7.	Mrs. P., æt. 45.	I. Para.	Oct. 11, 1894.	Abdominal enlargement noticed one year ago, increasing "spotting" constant, increasing last two years, increasing menorrhagia; present symptoms on pelvis and back.	Multiple, subperitoneal, and interstitial fibroids, weighing 1½ pound.	Vaginal-abdominal method. Due to size of tumor, impossible to bring the mass low enough in the pelvis to perform morcellment. Vaginal attachments and peritoneum severed anteriorly and posteriorly through vagina. Then removal through abdominal incision. Removal of tubes and ovaries. Thorough gauze drainage. Caught ligatures on both broad ligaments.	Gauze drainage removed in forty-eight hours; uninterrupted recovery.	Recovery.
8.	Mrs. A. P. H., æt. 53.	III. Para.	Mar. 5, 1895.	Constant backache and inability to walk; pelvic tenderness on least exertion; excessive menorrhagia. Bedridden fifteen days in every month.	Interstitial fibroids.	Doyen's clamps. Uterus, tubes, and ovaries removed.	Clamps removed in thirty-six hours; recovery uneventful; temperature once 101; pulse 125. Convalescence otherwise normal.	Recovery.
9.	Mrs. G., æt. 37.	IV. Para.	Mar. 7, 1895.	Constant flow for about one year. Pain in both ovarian regions; soreness and weight in pelvis incapacitating her for work.	Multiple fibroma, ovarian cyst, of right side. Pelvic peritonitis with diffuse adhesions through pelvis.	Morcellment of fibromatous uterus by vaginal method followed by removal of ovarian tumor through abdominal incision. Doyen's clamps used in broad ligaments. Left ovary and tube, being normal, were not removed.	Uninterrupted recovery; temperature never rose to 100; abdominal wound healed by first intention; clamps removed in thirty-six hours.	Recovery.
10.	Miss H., æt. 35.	Single.	Mar. 12, 1895.	More or less constant flow for four months; constant pain, soreness, and tenderness in pelvis. Backache.	Multiple, subperitoneal, and interstitial fibromata.	Morcellment. Vaginal method, leaving both tubes and ovaries.	Uninterrupted, uneventful convalescence; patient out of bed in two weeks.	Recovery.
11.	Mrs. H. C., æt. 49.	Nullipara.	Mar. 13, 1895.	Profuse bimonthly menstruation, noticeable abdominal enlargement with pains in region of tumor.	Subperitoneal and interstitial fibroids.	Cervico-vaginal incision, with separation of vaginal tissue. Impossible to draw uterus down. Enucleation of large fibroid through abdominal incision. Removal of uterus and small fibroids through vagina. Doyen's clamps. Ovaries and tubes not removed.	Uneventful; clamps removed in thirty-six hours; union of abdominal incision by first intention; patient out of bed in two weeks.	Recovery.
12.	Mrs. E. B., æt. 43.	III. Para.	Mar. 17, 1895.	Regular menstruation until five years previously, but suffered greatly with spasms of pelvic pain, worse through menstruation. Since that time constant painless hemorrhages. Dull dragging through back, worse in lumbar region.	Polypoid fibroma of body of uterus, projecting from uterus and filling vagina. Small fibroids of posterior wall of uterus.	Enucleation of vaginal tumor and amputation of body of uterus through cervix. Doyen's clamps on broad ligaments; through cervix.	Clamps removed in thirty-six hours; drainage by gauze into cervix, swabbing following douching sixth day; uninterrupted convalescence.	Recovery.

rapidity. As the result of observing patients after their operations, whenever possible, I shall in the future remove the tubes and ovaries when it is necessary to remove the uterus, thereby leaving no diseased appendages, with the possibility of future trouble.

No better argument can be offered in favor of any method of operating than the results achieved by that method.

Dr. Howard Kelley in the *Bulletin* of the Johns Hopkins Hospital for October, 1894, gives a report of seventy hysteromyomectomies, performed by the combined intra- and extra-peritoneal method. The death rate was 4.2 per cent. Owing to the skill of the operator, and the ideal conditions surrounding him, this can be taken as a type of the best American work.

By morcellement, the statistics of ten of the best French operators show seven deaths out of 406 cases, a mortality of 1.7 per cent., a result that has never been approached by any other method.

My motive in presenting this report of cases for the consideration of the profession is to call their attention to the success of this method, as yet but little practiced in America, but which I am certain is destined to rank as one of the most successful and brilliant operations.

NERVOUS SYMPTOMS DUE TO RECTAL IRRITATION.

BY

DONNA ANN WALDRAN, M. D.

THE subject of reflexes having claimed so much of our attention recently, it does not seem amiss to report one of my late experiences. The latter part of February I attended a child six months old, with croup. Afterward

my attention was called to the state of its bowels, which were constipated. He had first been fed malted milk, which clearly did not agree with him. He was then put on sterilized milk, with barley or oatmeal water. Used bryonia, nat. sulph., and nat. phos., each remedy soon having its effect. Finally, left him nux and sulphur. While calling on an adult patient, two weeks after, saw the baby, who, with the exception of a slight cough, was to all appearances perfectly well. Was then taking the bottle, and apparently choked as I took him in my arms; his face became livid, and he lost consciousness. In trying to restore him, by dilating the rectum, found a ball of fæces about two inches in circumference. For a time could not get around nor through it; finally succeeded in removing it, and a copious action followed, notwithstanding his having had two that day. As soon as the irritation was removed consciousness was regained. Immediately used hot injection, bath, massage, and inhalations of ammonia. He was not able to swallow for about fifteen minutes; did not look natural for an hour or more. Gave a purgative, and changed from sterilized to condensed milk. He was better Saturday, but had two slight attacks during the night, being relieved each time by sweet oil injections. Sunday morning found him with face much swollen and blue, eyes staring, yellow discharge from nose, hoarse cry, sluggish bowels, heart's action intermittent, and free perspiration and opisthotonus. Ordered a bath. Believing his condition due to pressure on the sympathetic nervous system, thus producing partial paralysis of the intestines, I decided on kali phos. As it seemed that dissolution might take place, Dr. Shearer came in consultation at 11 P. M. After a thorough examination, advised a continuation of kali phos. This, with the exception of the occasional use of magnesia phos., for colic, caused by the change of food, was continued as long as indicated. Now have him on calc. phos., and he is doing well.

THE MANAGEMENT OF PREGNANCY.

BY

GENEVIEVE TUCKER, M. D.

THE experienced seaman, when he sights a peculiar cloud in an otherwise clear sky, instead of saying to himself, "Winds will blow and tempests rage, and this cloud is but one of Nature's manifestations," rather goes aloft more frequently to scan the heavens, and keeps a closer lookout, that he may avert disaster, by making snug his sails and preparing for trouble, and doing this, then consoles himself that with his ship thus taut and strong she can weather any gale, and the chances are that this careful seaman, after the storm is past, will not have to pull ashore and lay up for repairs.

The popular fallacy that a pregnant woman is cursed to be uncomfortable and endure pain, and that Providence is bound to look out for her in the many changes which occur in the economy and organs of her body, from the time of fecundation until the expulsion of the fetus from the uterus, and that this state is only a physiological occurrence of an entirely natural order, has been a great obstacle to obstetrics. It is all this talk about Providence that has led to the mismanagement of pregnancy; that is, as a rule, in all the ages, pregnancy has *missed* being managed in either a general or special way.

We are ready to admit that pregnancy is a natural or physiological event in a physiological subject, but the fact that few mothers live under physiological and healthy conditions, makes, in a large per cent. of cases, more or less of a pathological event, because occurring in pathological subjects, but even the plea of a physiological event is no reason why there should not be special attention and supervision, for the delicate and intricate machinery of maternity

is easily disturbed, and such disturbance cannot be with impunity.

There is no doubt that the key to the management of labor, of the lying-in period, of lactation, and, in fact, of all departments of obstetrics, is the management of pregnancy. Accepting the facts as they exist to-day, that pregnancy constitutes a state intermediate between health and disease, or if you prefer from a physiological to a pathological condition, the question arises: How shall pregnancy be managed, by whom, and what advantages will ensue from such management?

In the management of pregnancy two factors are to be considered.

1. The maintenance of the mother.
2. The perpetuating of the newly created being.

And the obstetrician should have clearly defined ideas of what is to be accomplished during the period of utero-gestation for each of these.

In the first, the maintenance of the mother, includes more than mere life; because a patient does not die is no proof that the best results have been secured.

The conservative reason that leads us to avoid danger to the individual from pain and exhaustion in other directions also leads us to spare the mother to the fullest extent of our power, for pain suffered is not to the benefit of mother or offspring, then it is not enough that the mother lives, but that she lives comfortably and be relieved of the evil forebodings of pain and suffering, but even more than this should be included, that is, how she lives in the future, after performing maternity, the highest office in her being. It is not expecting too much that she should live without any gynecological trial but rather with increased vigor, and thus be given a greater capacity for enjoyment in a more abundant life.

The second factor includes the proper growth and development of the fetus for the period of nine months,

the safe transition from intra-uterine life into that of conscious existence, and provision for sustenance by lactation. Two agents are at hand to accomplish these results.

1. Hygienic agents.
2. Medical agents.

Again should the obstetrician have well-defined ideas of what is to be and can be accomplished for each of these factors, by these agents; there should be clear cut conceptions of the results to be obtained in the maintenance of the mother, and the perpetuating of the offspring, by hygienic and medical means.

To attain the best results from hygienic agents we must accept the maxim that the regimen of a pregnant woman cannot be the same as that of a non-pregnant one. We know this is contrary to the generally accepted teaching, that when a woman is *enceinte* she needs make no changes in her course of life so she but conform in a general way to the rules of health.

We contend it is not enough, that the general laws of hygiene as to physical health be enforced during gestation, but special attention must be given to sleep, fresh air, exercise, dress, baths, diet, and regimen. Definite results from which may be attained for each individual case.

Hygienic agents divide themselves during pregnancy into two classes, viz., general and specific. In a general way we aim to invigorate the health and preserve the integrity of the nervous system in the expectant mother. As to sleep, pregnant women require more; this sleep is needed to qualify the peculiar susceptibility to morbid impressions and as an aid to pure repose and tranquility of mind in the mother, while it secures the right development of the nervous system in the unborn.

The sleep should not be one of exhaustion, inertia, or *ennui*, but regular hours of quiet restful sleep. The bed should give room for freedom of movement and chance to lie in any posture, the expectant mother accustoming her-

self to sleep in any and all positions in the early months of gestation will have greater freedom and her rest be less disturbed in the later months by the discomfort of her form.

There is a greater demand for fresh air to oxygenate the increased quantities of carbonic acid gas eliminated in the quickened respiration of pregnancy.

Exercise should be moderate and agreeable, not violent or carried to excessive fatigue and never to exhaustion. "To lead a gentle, active life in the open air," is the rule.

The matter of dress, of great importance to health at all times, becomes a vital one now. The devitalization of the organs of reproduction by the compression of clothing often seriously interferes with the growth of the child. Many of the ills and discomforts of gestation are due to the uncomfortable garments worn. The Jenness Miller patterns for maternity are proving a God-send to expectant mothers who wish to look and feel comfortable at all times. These garments are adjustable, and have been on the market for some ten years.

There should be not only the usual cleanliness of the body, but more than ordinary care of the skin by way of bathing, the free use of water is beneficial. The judicious use of sitz baths are restful and healthful. Baths of cocoanut oil or salad oil given with a massage of the hips and abdomen are beneficial to mother and child, giving vigor to weak, debilitated, and nervous mothers, and a good tone to the nervous system of the babe.

Last, but not least, is diet and regimen. In a general way the diet should be nutritious and wholesome, generous in meats, vegetables, and fruits, and at the same time easy of digestion. There should be plenty of well-cooked food, seeking a nutritious rather than a stimulating quality, with a gratification of all harmless desires and a denial of harmful cravings.

A voracious appetite should be restrained and a feeble

one encouraged. So much for hygiene in a general way, and right here, in our opinion, is one of the great mistakes obstetricians make in the management of pregnancy. We do not pass from general to specific hygiene, for it is from the special means that definite results are obtained.

Not alone baths for the expectant mother, but what particular baths shall this expectant mother have to maintain herself and perpetuate her offspring, shall it be sitz baths, sponge baths, oil baths, or what not? How often and when shall they be taken? What kind of exercise shall this woman have, how much, and when?

What is the diet and regimen for this woman, healthy in body and mind, with a surplus of nerve force, and what is the diet and regimen for this pale-faced mother, cultured and delicate, of a rheumatic or neuralgic diathesis? Apply the same diet, say the fruit diet, to both of these women, and you can but have "truth and falsity joining hands."

You may have the best results from such a management in the one, but not in the other case. Hygienic agents specialized to the individual expectant mother are the winning factors in the management of pregnancy.

Routine employment of any measure can but be disappointing, if not harmful. The popular books, "Tokology," "Parturition without Pain," "Eutocia," "Maternity Guide," and the later one of "Mother and Babe," have brought to the attention of expectant mothers that there is an improved and better way in maternity. Under their teachings many women have verified that a more rational mode of life, and a careful diet did away with much of the suffering and discomforts of pregnancy. On the other hand, there is no doubt that long and lingering labors have followed, in women weakened by an excessive fruit diet and the wrong use of the health lift and calisthenics. On the whole, these books have been good because educative, the harm has not come from the teaching, but in the

application. A partial, instead of the whole truth has been given, and this leads us to the question :

By whom shall pregnancy be managed? And we answer, The physician. Such supervision should not begin in three, five, or seven months, or when sickness occurs or sufferings become unendurable, but from the first should women put themselves under the guidance of their physician. A woman may apply hygiene in a general way, but where it comes to specialized means and medical agents, she must resort to the physician, nor need any woman wait to be assured she is *enceinte* before seeking such service. No harm can come to any woman from living one or two months as if she were pregnant, while much harm often comes from living the early months of gestation as if non-pregnant.

Again and again is sickness induced, and suffering follows due to the neglect of these early weeks. The maintenance of the mother and the perpetuating of the offspring are best secured in the early supervision by the physician.

How such management may be secured and how far physicians are censurable in not having it, I leave for your discussion. Is it true that woman has not always found sympathetic help and assistance when such advice has been sought, that she has been led to come with an apology for asking if anything needed to be done, as long as she was not sick or in pain? Is it true physicians act bored or uninterested, and even show ignorance when asked about health instead of disease? Is it true we are all animation and intensely active only when using surgical and medical means, applying forceps and repairing perineums, but are listless and weary, and act as if it was not worthy of our attention to specialize the dress, exercise, or diet for the expectant mother in the early weeks of pregnancy?

It is said that in the obstetrical department of a certain dispensary in one of our great cities no cases were taken without at least two months' previous treatment;

so much was accomplished by the management of even this short period of pregnancy, that the students lost interest and began to fall off from this department, because the midwifery became so very *commonplace*.

To homeopathy belongs the palm for first introducing therapeutics into the management of pregnancy as a prophylactic treatment of difficult, painful, and tedious labor. Not alone the pangs of parturition have been modified by parturifacients, but the entire period of utero-gestation has been made healthy and free from discomforts, in the use of medical means coupled with a well-conducted hygienical treatment, abortions have been prevented, puerperal fever and eclampsia prevented, morning sickness has been relieved, even the severe nausea due to endometritis. Indigestion, heartburn, constipation, sleeplessness, disorders of locomotion, the highly unstable nervous system, general debility, impaired nutrition and albuminuria with all their attendant ills and discomforts have been relieved and cured by such management. We have overcome medical dystocia, and modified mechanical dystocia, we have had healthier placentas and sufficient lactation, and as a consequence more beautiful and stronger children. Nowhere else in the whole domain of medicine are we satisfied so easily with incomplete success as in obstetrics. We regard with complacency the pain and sufferings of the mother, and look upon the offspring, cursed with all the weaknesses, meanness, and foibles of their parents, with indifference, and never suggest a better way.

The earnest chief of a fire department glories more over the incipient fires put out than over large conflagrations stopped in half-consumed buildings. So likewise, shall we not as obstetricians, search out most diligently what hygienic and medical agents can accomplish in the maintenance of the mother and the perpetuating of the offspring during the period of pregnancy? Having found this, then, as obstetricians, let us try to secure the management of

pregnancy from the first week, hoping that this angel of progress will make midwifery so "commonplace" that we can assure to a certainty every woman that maternity will be but an evolution of health and happiness, remembering that complete success depends upon careful individualization and attention to minutiae and details, for it is "trifles that make perfection," and perfection is no trifle.

INFANT FEEDING.*

BY

H. H. LEAVITT, M. D.

NOTHING is more thoroughly impressed on the physician's mind than the fact that there are many more mothers than there are good nurses. All will agree, too, that there is no artificial food that will fill the place of mother's milk. For sufficient reasons, however, it becomes necessary for many mothers to cut short the nursing period and the physician is consulted with reference to a substitute for the mother's milk. When we consider the great number of cases of diarrhea and constipation directly traceable to improper feeding, the frequency of eczema and erythema, the sweating of the head, the abdomen distended with gas to such an extent as to interfere with the expansion of the lungs, leading to congestion of those organs, when we see all these results of improper feeding we begin to realize the importance of the subject of infant feeding.

What have we to offer as a substitute for mother's milk? The market affords a number of so-called prepared foods and numerous brands of condensed milk. Dairy milk, too, claims attention, a pure supply of which is a possibility for nearly every family.

* Read before the Minnesota State Homeopathic Institute, May 22, 1895.

The prepared foods may be considered as belonging to one of three classes. First the farinaceous foods, whose value lies largely in their mechanical action. Imperial Granum and Ridge's food would be samples of this class. Second, the Liebig or malted foods, Mellin's food, for example. All these foods are prepared with milk, the relative proportion of which can be greatly varied. Third, is that class in which the dextrinized or malted flour has been evaporated with milk and is ready for the nursing bottle upon the addition of water only. Malted milk and Nestlé's food belong to this class. Cow's milk, then, in one way or another enters into all infant foods of commerce. In order to properly estimate the value of commercial foods it is necessary to consider some of the differences between cow's milk and woman's milk.

Cow's milk contains slightly less fat than woman's milk. Cow's milk is acid in reaction; woman's milk is alkaline. Cow's milk contains about two-thirds as much sugar, and three times the quantity of albuminoids, most of which is casein. To put it the other way, woman's milk is slightly richer in fats, contains about a half more sugar and only a third as much casein as cow's milk. Woman's milk is sterile; cow's milk contains many kinds of bacteria—ferment and disease-producing. The quality of the fats and sugar found in the two kinds of milk is essentially alike. The albuminoids differ greatly in quality as well as in quantity. The albuminoids consist of casein which is coagulable by acid and lactalbumin, which is coagulable by heat. These elements now exist in cow's milk in the proportion of four parts of casein to one part of lactalbumin; in woman's milk the ratio is reversed, one part of casein to two parts of lactalbumin. Further, the casein of cow's milk coagulates in a hard lump, while the casein of woman's milk coagulates in fine flakes. From this comparison it follows there are five well-defined differences that must be corrected before cow's milk is substituted for human milk:

1. The acid cow's milk must be made alkaline.
2. The deficiency of milk-sugar must be made up.
3. The surplus of casein must be reduced without reducing the proportion of fat.
4. The tendency to form large, tough curds must be checked.
5. The milk must be made sterile.

What is the best way to accomplish these ends? Does any one of the various infant foods meet all the requirements? It is safe to say none of them does, yet many of them are preparations of great merit. They are of more value, however, in meeting some special indications than as a foundation for the baby's food. In cases of acute indigestion and diarrhea, I regard Horlick's malted milk as a most valuable food. In chronic indigestion or for infants with delicate stomachs Fairchild's peptogenic milk powder enables us to prepare a food that is partially digested and one that very closely resembles human milk. The powder consists of pancreatin, milk sugar, and alkaline milk salts. A measure of this powder is added to a pint each of milk and water, and four tablespoonfuls of cream. The mixture is heated gently for a few minutes then brought to a boil—stopping further digestion and sterilizing the product. The analysis of milk thus prepared, as given by Prof. Leeds, shows the following :

	PER CENT.
Fat.....	4.5
Albuminoids.....	2.0
Lactose.....	7.0
Ash.....	0.3
Total.....	13.8

Mellin's food is a valuable food and is easily prepared. It is to be recommended when the infant is vigorous and the mother anxious for a food easy of preparation. Beyond

the nursing age it is a good food also. Under circumstances where it is impossible to get good milk, or the mother is not neat enough to be trusted to properly prepare a milk food, it is best to select a food that requires only the addition of hot water. Horlick's malted milk, Nestlé's food, and condensed milk are useful here.

So much for prepared foods, but what of good, fresh cow's milk? When properly prepared it is, in my judgment, for the majority of children superior to all other foods. It is not a difficult task to make it fill the five requirements. Begin right and be systematic. When the milk comes from the dairy fill a couple of quart Mason jars and cover loosely with the can top (if the animal heat is still in the milk cover with absorbent cotton), set the jars in water nearly to the top. If possible use a sterilizer made for the purpose. ("The Perfection Sterilizer" is a good one, as it has a thermometer attached). Heat the water to 175° F., keeping it at this point for five minutes, then remove the source of heat and let the jars stand in the sterilizer for twenty minutes. Now screw the covers down tight. Cool the milk either by pouring cold water into the sterilizer or by setting the jars in the ice chamber of the refrigerator. In two hours or more, when wanted, pour off the upper third of the milk and cream into the graduated nursing bottles, putting into each only one-third the quantity (see table) which it is desired to feed to the child. Stop the necks of the bottles with absorbent cotton and set in a cool place until required. When feeding time comes add a half-teaspoonful to a teaspoonful of sugar of milk and a pinch of bicarbonate of soda to the milk in the bottle and shake it. Then add boiling water to the required amount. Give the milk to the child at as near the body-temperature as possible, viz., 98° F.

I give here a table for determining the proper amounts of food and the proportion for children of different weights, the amount depending on weight rather than on age.

TABLE.

<i>Weight of Child.</i>	<i>Quantity for Each Feeding.</i>	<i>Proportion.</i>		<i>Use of Milk.</i>	<i>Times for Feeding.</i>	
					6 A.M. to 6 P.M.	Night.
6 to 8 lbs.	1 to 2 oz.	$\frac{1}{2}$ milk.	$\frac{1}{2}$ water.	Upper $\frac{1}{3}$.	Every 2 hrs.	Twice.
8 " 10 "	2 to 4 "	" "	" "	" "	" 2 $\frac{1}{2}$ "	" "
10 " 12 "	4 oz.	" "	" "	" "	" 3 "	Once.
12 " 14 "	5 "	" "	" "	" "	" "	" "
14 " 15 "	6 "	" "	" "	" "	" "	" "
15 " 16 "	7 "	" "	" "	" "	" 3 $\frac{1}{2}$ " from	None.
16 " 18 "	8 " and	All "	No "	Entire milk.	5 A.M. to 7 P.M.	
and more.	over.					

Two tablespoonfuls are equivalent to one ounce. Use a half-teaspoonful of sugar of milk for each three ounces of food ; also bicarbonate of soda about the size of a small pea.

Under certain conditions it is better to add a small quantity of barley water or oatmeal water to the milk instead of plain water. A tablespoonful of oatmeal or pearl barley should be simmered for two hours in a quart of water. The water that is then strained off can be used in varying proportions as required.

By this process we have rendered the cow's milk alkaline (by the use of soda); we have supplied the deficiency of sugar (adding the sugar of milk); we have reduced the casein and kept the fat (using the upper third); the tendency to form tough curds has been reduced by the addition of the soda and by dilution and still further by the addition of barley or oatmeal water, and we have rendered the milk sterile.

Two points I wish to emphasize: the importance of taking the upper third, thus retaining all the fat, and sterilizing at a low temperature, 157° to 170° F. We accomplish all that boiling will accomplish, *i. e.*, we kill all the germs that are ordinarily present in milk and we do not injure the milk. Boiling coagulates the lactalbumin, rendering it insoluble. A certain amount of fat is caught in the meshes of the coagula and thereby rendered also practically insoluble. The milk is seriously injured and failure of nutrition is a frequent result.

By retaining all the fat and sterilizing at a low temperature the conditions for good nutrition are practically assured.

Institute Etchings.

Reported stenographically especially for this Journal.

LOCAL TREATMENT.

DR. J. W. HAYWARD, Taunton: Each specialist sees all sorts of diseases and calamities to the human body originating from his own special organ or section, and assures us that by his magical touch, it can all be cured—all darkness becomes light and all ailments of the human body disappear. Thus the oculist cures all headaches, heart, stomach, and pelvic troubles by curing the eye. The abdominal surgeon makes a free incision in the abdomen, releases, he knows not what, and all diseased conditions disappear. Another specialist releases the clitoris and the opaque cornea becomes clear, and all darkness is straightway turned to light. And so we go on, studying from special points and radiating from them. Poor old Hippocrates must have been a specialist or he never could have seen all the multitude of miseries coming from the uterus. We are called upon by the doctors who preside over the nervous system to watch out for the fellows presiding over other parts of the body, while they build up pelvic disturbances and knock them into pi by their magic touch on the nervous centers. I think that we all know and are ready to admit that pelvic derangements, functional derangements of these organs, often arise from other points, as from: fagged brain, the generally exhausted condition, the condition of neurasthenia which comes from brain fag and general overwork. This fagged and exhausted condition of the system will produce all sorts of pelvic derangements and disorders. So long as there are functional derangements and disorders, I believe, it is our duty to treat precisely as has been pointed out; but when they have gone

a little farther and we have interstitial changes, the physiological and anatomical integrity of the organs are arrested, in which condition disturbances develop and neoplasms grow and all sorts of changes occur. I fear that this treatment, a sojourn in Fayal or a life-long stay in bed with a battery thrown in as a companion, would be futile in its efforts to restore health. At that point, I believe it is the duty of the surgeon to interfere. I believe it is just as essential to use surgery at this point as it was to try the other treatment at the beginning. The fly, when entangled in the web of the spider, cannot release himself except by local effort; I say that, when the patient has reached the stage of interstitial change, it is just as futile to make any effort except local as it would be in the case of the fly. The parts are just as permanently bound down as the fly.

NERVOUS INSTABILITY.

DR. RICHARDSON, St. Louis: The pendulum has begun swing in the other direction. It has been away up at the surgical end for a long time and it is high time that it commenced to swing back again. A little further in the direction of surgery would have carried the pendulum away and destroyed the machinery. These questions of cause and effect are largely a matter of ignorance, I believe, and it is just such papers as this which enable us to make correct diagnosis, and it is all diagnosis. There is surgery and surgery. As a surgeon I believe there are times to operate. We should know and recognize the time to operate and the time not to operate and differentiate between functional and organic disturbances. It is true, perhaps, that mere functional disturbances may in time lead to organic changes, but I do not admit that when we have an organic change as a result of functional disorder, we may not cure without the aid of the knife. I believe that organic derangements may be removed without the knife when dependent primarily upon functional derangements.

Let us not decry the surgeon or the prescriber; each has his field and should cultivate it. Each should know what he is treating and treat it upon the most approved lines which experience has shown to be beneficial. It is largely conceded that neurotic conditions are benefited by hygienic, climatic, and general treatment, perhaps more so than by therapeutic measures. A trip to the South Sea Islands would be beneficial in these cases, and whether it was nervous irritability or instability would make very little difference. But we have a place nearer home, which may be reached without a sea voyage and which will give as good results as may be obtained anywhere on the face of the globe. I have within the past fifteen or twenty years made some observations of the climatic condition in America, and I believe that in southern Florida there is a more restful atmosphere than anywhere in America, or in the world. The climate is a balm and a poultice to the nerves. The genial, warm clime, sunshine, ozone, necessary moisture and humidity, which lulls and allows the irritated nerves to resume their function. There are limitless opportunities for outdoor exercise, and boating, etc., may be indulged in any day of the year. There is not a day that the patient cannot get out of doors. I believe that the orange cure is as good as the grape cure, if not better.

NERVOUS IRRITABILITY.

DR. O. S. RUNNELS, Indianapolis: Whether disease begins in the brain, or goes upward, or whether this system is acted upon by forces from without, are great questions. I hold that if we have a fair chance we shall know nothing of disease; that the reserve which every healthy person is supposed to have ought to carry him through, and the microbes would slide off him like water off a duck's back, so he would not succumb to the disease influence. It is not hard work which causes or makes disease. Ninety-five per cent. of all people are born poor, and it is well that it

is so. The Lord knows what he is about. You will live to three score and ten if your reserve is all right; but when an individual is reduced to bankruptcy and finds himself unable to contend with the forces brought against him, then he is acted upon by the outside influence. It is an irritability rather than an instability. We want to think of and look at the matter. It is all right to talk Fayal and Florida to the people who live in palaces, but we do not treat that class exclusively. It is like the young physician who advised his washwoman to take a trip across the ocean when she could not pay her way to the next county. Let us be practical, get down to business, and find out what will do the work. Human beings are like trees in the forest, acted upon by an inimical force, like a tornado or some insect. Outside irritation produces an instability; they no longer have their reserve to draw upon, like a storage battery, in time of need.

LOCAL AND GENERAL DISEASE.

DR. G. F. SHEARS, Chicago: We have been taught that a large share of disease is due to some local irritation, and that the way to cure was by the removal of the local irritation. I believe that the larger share of diseases are from general conditions and that the local conditions follow. When the tree does not do well in the forest it may be from lack of proper nutrition, or to some outside influence, as insect or tornado, and it is about as sensible to cure the tree by removing the dead branch as to try to cure disease by removing a local condition. Many cases are treated by local measures, or the removal of local conditions, which might be more easily and satisfactorily cured by general treatment. Extra nutrition will remove many of these troubles and many operations are successful, not because of removal of local conditions, but because the patient is in bed and well cared for for several weeks. I remember a case under my care which had been treated

for a local condition a number of times and each time with benefit. There had been dilatation of the rectum and other orifices, and each time she was benefited, but she was in bed for some time after each operation. The trouble returned and she was permanently benefited by rest in bed and general treatment. Why subject the patient to the pain, annoyance, and expense of a surgical operation when general treatment will suffice?

ELECTRIC TREATMENT IN GYNECOLOGY.

DR. W. H. KING, New York: All forms of electricity have their indications at certain stages. The method of Apostoli has failed in many instances, chiefly because too small an electrode has been used. Success depends upon thorough contact of the electrode with the diseased surfaces. It is usually useless to get the local action of the electricity upon the diseased tissue; it is not the interpolar action which affects these parts in this case. The fact that platinum must be used is responsible for poor electrodes. A set of properly made platinum electrodes would cost over three hundred dollars, which is more than most of us can afford to pay. This has caused the use of small electrodes, so that sufficient tissue did not come in contact with the pole. I have recently had constructed a set of aluminum electrodes which are not acted upon by the positive pole; they are arranged in six sizes, ranging from number three (3) to number eighteen (18), French scale. This set cost less than three dollars, and it is thus possible to use one large enough to come in contact with all the diseased tissue. Then medicine may be thus introduced so that it comes in contact not only with the surface but the medicine is carried to the deeper tissue and underlying diseased glands. Now, iodine set free, molecule by molecule, has a greater action than when applied whole or injected into the tissues. The question arises, just where do all these classes of treatment come in? If you consider

experience, I think that in that form of incipient endometritis, where only the glands are affected and where no interstitial changes have taken place, the intra-uterine treatment is best, is indicated, and will cure most speedily. Where there are interstitial changes, which may have produced a certain amount of hemorrhage, but which have not reached the stage where the curette is indicated, the Apostoli treatment is indicated; and when the stage of fungus growth is reached, the curette should be used. There is a difference also in the treatment by mere electrolysis of tissue, and that where the caustic effect is had. One may simply produce electrolysis upon the tissue, the other carries the medicine into the tissue, and the third produces electrolysis upon the metal, and that, in turn, acts upon the tissues.

HOMEOPATHY IN GYNECOLOGY.

DR. S. N. SMITH, New York: I would like to inquire if we need to use electricity at all in endometritis. Have we as homeopathic physicians no remedies for this disease? I have never had any trouble in successfully treating this disease with remedies. I have used no electricity since two or three years after graduation; I have something better now, and I believe that as long as we understand our materia medica we have no need of electricity. I have no quarrel with those who prefer it, if that is their method of treatment, but I do not call it homeopathic any more than a blister is homeopathic. Why go to all the expense of instruments and batteries when we have simple remedies which will do the work? For ovaritis we have operations and I do not believe in them. I call to mind a case in New York four or five years ago, where three physicians agreed to operate for ovaritis. They opened the abdomen and found no trouble there. They went to the father and admitted a mistaken diagnosis and asked what they should do. He left it to them. The family was wealthy

and paid those men twelve hundred dollars rather than have the matter made public. The case came under the care of a woman physician, a friend of mine, who cured her of nervous debility or prostration, or whatever you call it, in three or four months. I believe we have too much of this thing. I have a friend, an old pupil of mine, whose health has been broken down by an operation for removal of the ovaries and she is no better than before the operation. I believe that the homeopathic remedy, if studied and used, will cure these conditions, and if used oftener we would have fewer broken down women than we have to-day.

PELVIC PERITONITIS.

DR. S. P. HEDGES, Chicago: One-third of all our work can be classed under the head of *gynecology*, and nearly one-half of our work in the true pelvis comes under the head of the pelvic peritonitis. Let us consider the tissues of the pelvis. There is the serous tissue which is involved in pelvic peritonitis. We have this very important membrane, which surrounds and pads all portions of the organs here, which is more important than a few years ago, but not as important as many years ago, when it was proven to be the most frequent seat of pelvic inflammation. Then we have a mucous membrane, and it is not reasonable to suppose that we could have an inflammation of any one of them without partially involving the others, so we may have one disease in the ascendency for a time, then another. Now pelvic peritonitis seems to be the trouble most of the time, and we cannot have inflammation here without involving the pelvic peritoneum. These different membranes become inter-involved. Pelvic peritonitis, as regards the simple peritonitis here, is similar to the inflammation of other serous membranes, as the pleura. Then may we have a non-septic or a septic inflammation, and from the latter arise our most serious cases. They may be complicated

one with the other. We do not take into consideration to-day the puerperal peritonitis, though it would come mostly under the head of the septic variety. I should like to suggest the question of ætiology, as bearing on the treatment; this brings us to the right end of the string and extends almost to prophylaxis. Everything in treatment depends upon getting at the cause, and there are various exciting causes. If it were a simple pelvic inflammation it would be treated differently from a septic inflammation. If it had extended through the uterus and tubes and debouched upon the peritoneum that fact should be borne in mind, so no time would be wasted in treating a simple inflammation. How do these cases present themselves? The modern and extant idea is that of the germ theory, and the germs must gain entrance by the uterus and pass through the tubes, causing salpingitis and peritonitis.

A GELSEMIUM CASE.

DR. A. M. CUSHING, Springfield: I recollect being called to see a case at two o'clock in the morning; she had aborted two days before. A competent nurse met me at the door and said the patient had had the worst chill she had ever seen. Purple face, pulse 120, temperature 106.5°, begging for morphine, but I said "We don't want to be blindfolded," so I did not give it—then she had lung trouble, too. I saw nothing better indicated than gelsemium, so I gave it in water every five minutes. After thinking over the case a few minutes, I told the nurse to fill the syringe with a weak solution of gelsemium, which was used, and in three hours the patient had a peaceful face, pulse 100, temperature 100°, and she made a rapid recovery.

A QUESTION OF DIAGNOSIS.

DR. J. C. WOOD, Cleveland: I desire to make a plea for the medical student, and I wish the term "pelvic periton-

itis" were entirely discarded. Do we go to the bedside and differentiate pelvic peritonitis from pelvic cellulitis, or from a bad case of acute metritis or endometritis? Can we do it? Can we always rely upon subjective symptoms, and are we justified in all cases in making a careful physical examination to determine which kind of a case we have? I say that the terms "pelvic peritonitis," "pelvic cellulitis," "acute tuberculosis," "septic metritis," and others had better be blended into "acute" and "chronic pelvic inflammation." We have no right to ask more of the student than we ourselves do at the bedside.

LOCAL TREATMENT.

DR. B. F. BETTS, Philadelphia: It is to septic infection from unclean instruments, syringe nozzles, and unclean fingers used in examinations that we have to charge a great deal of suffering. After parturition frequently a serious septic infection occurs, extending through the tubes, causing chronic invalidism from peritonitis. A case recently occurred under my own observation in which, for lack of uterine drainage, ten days after, serious systemic disturbances ensued, relieved by passing a sound and dilating the cervix. It is my belief that the efficacy of the application of electricity may be accounted for by the antiseptic influence exerted and the chemical action of the current upon the products of disease. I believe, however, that the results are not equal to those obtained—and I speak from experience, having used electricity carefully and thoroughly for twenty years—to the direct application of the curette and dilatation of the cervical canal, because of the difficulty experienced in getting the electricity in contact with all diseased tissue. After considerable experience in the treatment of young girls suffering from neurasthenia, I am forced to the conclusion that, in many of these cases, pelvic symptoms have been ignored entirely, and that these symptoms, not having been brought prominently into view

in the first stage of the disease, finally became most prominent from the fact that from some congenital malformation, perhaps, there has been such stenosis that there is imprisonment of septic material in the uterus which extends through the fallopian tubes.

SWABBING THE UTERUS.

DR. WALTON: As long as the lochia is right and the woman is not sick, for God's sake, let her alone. These are not the cases we are talking about. It is about the cases that are sick. Then we come in with the doctor's suggestion and put in the probe and clean out the uterus. In Cincinnati we have to use a wash rag to get clean. Go to your glass blower and have a long glass tube with a bulb on the end, and long enough to introduce without running in your rubber tube. It does not cost much and you can sterilize in two minutes and a half, and you have a clean instrument, so much better than you can buy. You can have it made with a return flow if you wish.

CAUSES OF DISEASE.

DR. E. H. PRATT, Chicago: There are one or two things I ought to question relating to the manner of communication of disease through the body. Is it always by continuity of tissue? Must the microbe have a way to travel and a door open from one cavity to another? The factors of communication are nerves, when Nature wants to talk she does not talk through a fence or across a back yard, but the message goes up to the nerve center and back to the periphery. When Nature has a function to perform she does it through a bundle of nerves, and each knows what the other is doing, not because they lie close together but because they come from the same nerve center. In this sexual apparatus nerves will go to the os uteri, to the cervix, others to the tubes, more to the fimbriated extremity—

not a single nerve, but a plexus. Each has a connection with the central office and knows what the others are doing, and if the clitoris is being irritated, the uterus and the ovaries know it. If a man has the mumps and catches cold, how does the metastasis reach the testes? It must be due to nerve communication, not because there is a passageway between the parotid gland and the testes. The communication between ovaries and uterus is natural, because they are associated in function. When the ovum is ripe the fimbriated extremity knows it. Their action must push it down to the uterus, and all must work in harmony to let the procession pass. This is not from continuity but from common function. It is the intelligence of the body.

GYNECOLOGICAL SURGERY.

DR. R. LUDLAM, Chicago: I have made two Cæsarian sections in case of abdominal tumors, both of which were successful, both as to mother and child. I have performed Porro's operation similarly, saving three and losing two. I recall one case which may prove of interest: I was sent for to come forty miles in the country to see a case of threatened miscarriage. The patient was having pains when I arrived, and showed a history of one miscarriage; this was at about the fourth month. The physician in the case had made the usual digital examination, expecting to find the os uteri partly dilated, but failed to find the cervix at all. He is a live man and the teacher of obstetrics in a eclectic medical college. He knew there was something wrong, as he had recognized a pelvic tumor. He had given remedies and averted the threatened miscarriage, but the tumor troubled him very much. The family were anxious that the child should be carried to maturity. I told them that, in my judgment, it would be impossible to make a positive diagnosis without an exploratory incision. This was agreed upon, and I made the incision, cutting down upon the uterus, which was very high. I found a pelvic

tumor, fast, low down, and which could not be moved, and I said to myself, "If I attempt a Porro operation I shall kill this woman; if I make any operation, other than what I have, I shall kill the child. These people want a baby, as babies are unusual in this latitude. The thing to do is to close this incision, let the woman go to term and then, if you say, we will make a window in the abdomen and take the child out through the window." The attending physician indorsed my opinion and the plan was followed. He took care of the woman until full term, then sent for me one dark night to come in a hurry. She had been taken with pains, the waters discharged, and she was in active labor when we arrived at 12.30 A. M. Within an hour the pains had subsided, the waters drained away, and she was comfortable. I thought this the time for action, so we went to work on a Cæsarian section at 2.00 A. M., by the light of a single gas jet. What would have been done by one of these fellows given to high dilutions, I do not know. I went to work with good assistance, laid open the abdomen, then the uterus, extracted an eight pound baby, stitched things up again, left them all right, and the woman made a good recovery. I left the tumor, for had I taken it away I should have killed the woman, and as she had a husband and baby she ought to be satisfied. When I saw her a year and a half afterward the tumor had shrunk to one-third of its original size; she has been well since, though I may have to open that abdomen for the third time. This illustrates that gynecological surgeons sometimes save lives. The other case turned out equally well. The Porro operations were complicated with fibroid tumors in each case—fourteen in one and eight in another. Fibroids are almost always multiple, a fact that is often forgotten; these good fellows who do so much with electricity should bear this fact in mind. I want to say that I believe that Cæsarian section must be resorted to more or less often, under modern precautions. It is much more

justifiable in this country, where we do not have so many deformed pelves, than the Porro operation, which takes uterus, ovaries, and all. I believe it is coming to be more and more a safe operation in proper hands.

THE BOUGIE IN PREMATURE LABOR.

DR. SPAULDING : I criticise the use of the bougie in the first place because it is uncertain. Cases have been reported where the bougie had been used a week, one case eight days, without result. The operator said he might as well have laid it on the outside of the abdomen. There was a possibility that it was not passed far enough up to produce the results. The danger of rupturing the membranes, even if that happens, is not serious, as it merely substitutes one method for another. The danger of starting a small hemorrhage, which may start a larger hemorrhage, has in some instances been a serious matter. There have been cases where the bougie was not flexible enough and the uterine walls have been perforated. For these reasons I criticise its use, although used by many successfully. In the use of glycerin, the injection of air or water has produced very serious results. A case came under my observation where an operator injected water, and before he could summon a member of the family, the patient was dead. The same accident is liable to happen again. They say to exercise all care that there be no air in the catheter that carries the glycerin up into the uterus, but it does happen. That is only one danger. Many cases have been referred to where the patient has suffered very serious constitutional troubles where the glycerin has been used. It has been said that it is the result of the absorption of the glycerin. Large quantities can be injected into the rectum, although the surface is more of an absorbent than the endometrium. Nevertheless, I believe that it flows out instead of being taken up into the system. The danger that I fear is that it does the mischief by the disintegration

of the blood vessels. For that reason I condemn the use of the glycerin. The Barnes bags I have used. I believe I have an old one now. I have had it for fifteen years. I question their use for the reason they are made of rubber, which is perishable. It would fail you as it did in my experience. I was dilating a bag when there came an explosion which frightened the woman and myself too. One objection to the Barnes dilator in taking up a portion of the uterine cavity, it is just enough that it may tilt the head to one side and you get a transverse position, and that adds to the danger of rapid delivery. .

As to the time of bringing on premature labor. It is suggested that it is difficult to establish the precise time in the period of gestation. It is very easy to make a mistake as to the time of gestation. Many women have no data. They cannot tell. We must use the usual methods, the time of motion, etc. Another method is that by carefully questioning the patient we will find that at certain intervals they have a certain difficulty. Perhaps a little bearing down. In many cases this suggests the menstrual period. This will give you another means of estimating the exact term of pregnancy. We know that the pregnant uterus takes on regular relaxations and contractions. You will find that miscarriages will occur at this menstrual period more often than at any other, and you will find that you can bring on, more safely and naturally, premature labor at these times. I mention this as being valuable, all other things not being contra-indicated. Then it has been suggested that you must know the average size of the child head, and take into consideration the history of the previous pregnancies, and whether large-sized heads are peculiar to the family. Another method which is convenient, because always at hand, is to make frequent examinations by inserting the hand in the vagina next the presenting part, and with the other hand pressing on the abdomen. It may be necessary to use ether for it. Make a careful examination,

and when you find the head will no longer enter the strait, act.

EMOTIONAL CAUSES OF PUERPERAL SEPTICÆMIA.

DR. JUMP of Oberlin, O.: In regard to emotional causes ; I had a case of a very nervous organization. The third day the nurse, who claimed to be a thoroughly trained nurse, reported to me that every evening there was a rise in temperature. I had insisted that after eight o'clock the patient have perfect rest. One morning about three o'clock the husband came in great haste and said she was in a terrible condition. I found the temperature 104°. Pulse could hardly be counted. She informed me that the nurse had insisted upon staying in the room and putting things in order until after ten o'clock, and when she requested her to leave she said, "I am not going to have things like a pig pen," and then when she took her pulse she told her it was 160, and that she would probably have puerperal fever. Then she went to bed in another room and left the patient alone. Of course she was very nervous. She called her husband and called him, until he finally heard her and found her in this nervous condition. The nurse was discharged without being allowed in the room again.

LOCAL TREATMENT OF PUERPERAL SEPTICÆMIA.

DR. BERNARD: A word about the cleansing of the uterus ; the first thing we notice with our patient when there is an aseptic condition going on is a rising in the temperature. To the general practitioner the curette is an instrument they only use in extreme cases. They resort to it as the last measure. Now, I believe if they would use a common uterine probe, wind the end with cotton, and cover that over with a gauze, so that there will be no danger of the fibers of the cotton coming off, and with this wipe out the uterus, you will wipe out a large amount of the matter that is causing the aseptic condition. It is something any

physician can use without danger. The intra-uterine injection is frequently given through an instrument so large that the return is not great enough to carry off the amount of fluid passing in, and the fluid is carried into the fallopian tubes. I believe that more trouble comes from intra-uterine injections in this way than anything else. A word about the material used: any antiseptic material that is strong enough to destroy the bacteria is strong enough usually to destroy the patient. The two remedies I have used with best success are collodion, used about one in twenty, and eucalyptus, used in the same manner, where necessary to wash out the cavity. Never do it unless you have a return douche, and then with only a low pressure and not more than an ounce and a half at one time.

FEEDING INFANTS.

DR. L. C. GROSVENOR: With all my young mothers I give them this formula: Once in three hours and once in the night for three months, and then once in four hours and never in the night for the rest of the period. No colic, no vomiting, two stools a day. No teething trouble; no fees for the doctor. You think that is too military, but with my own eight children, we have nursed them every four hours during the time and never in the night. A celebrated physician in New York says that little babies are creatures of habit. When you and I want to form a habit we have to do a thing over and over again many times, but with a little child a habit is quickly formed. If you bathe him at a certain time, he expects it the third or fifth day. It is easy to do any reasonable thing with a little baby if your nurse is your friend, and carries out your wishes and purposes. Don't ask the mother. My nurses are largely from schools where I had the training. I have done the training in two or three nurses' training schools. Taught some in an allopathic nurses' school. They wanted

our method of caring for the baby and the mother and the lying-in room.

IMMEDIATE REPAIR OF LACERATIONS OF THE PERINEUM AND UTERUS.

DR. W. C. RICHARDSON: I feel that the immediate repair of both should always be done, and I feel that it is almost criminal carelessness not to do it. During the years gone by how many of the profession have neglected this, and what a disposition there is to say "They get well." I think it is the duty of the obstetric practitioner to make the repair immediately after the patient has been properly fixed for the lying-in bed. Do not wait. I do not believe in poisoning your lying-in woman by the use of solutions of bichloride, and other active chemicals. They should not be used and often have a tendency to prevent the thorough healing that should take place, if the operation is made immediately and properly.

LACERATIONS OF THE PERINEUM.

DR. WOOD: I am inclined to think that if the obstetrician understood more thoroughly the mechanical principles which should be applied to the reparation of the pelvic floor, the gynecologist would have less work to do subsequently. About the possibility of determining the form of injury known as relaxation, and not associated with the laceration of the perineal body proper: Immediately after delivery the parts are so relaxed that it is difficult to determine this form of injury. However, in many cases, I think in the majority of cases of laceration of the perineum, there will be found more less separation of the laxator ani and coccygeal muscles and their attachments, which I am convinced is much more common than the general practitioner imagines, and which is responsible for suffering and inconvenience. In the reparation of the

laceration I use the ten-day No. 2 catgut by Johnson & Johnson, chromicized especially for me. The ordinary catgut as chromicized is too hard and takes too long to absorb. It is an obstetrical principle, and at the same time a surgical principle, that all injuries shall be closed if possible, leaving no raw surfaces for the absorption of septic matter, and I think you will find that the patient's recovery will be more complete. You will not have that dragging down, bearing down sensation which so often comes with this form of injury.

It is perfectly absurd to tie the knees together in this case, because the perineum cannot be disturbed by the movement of the limbs.

I want also to emphasize the fact that it is necessary to use extreme caution in the use of the curette in these cases, because of the extreme danger of perforation. The puerperal uterus can be most easily perforated and a sub-involuted uterus also. It has been my misfortune to have perforated three uteri during the last three months with sounds. In each case the uterus was almost as soft as a piece of cheese. The sound passed through the wall in spite of everything I could do. One was a proper case for hysterectomy and was successfully performed. In the other two no subsequent trouble followed. There are a great many cases where the uterus has been penetrated without any serious trouble, but I can imagine it would be an easy matter to carry septic matter through into the pelvis in this way.

IMMEDIATE REPAIR OF THE CERVIX.

DR. HEDGES of Chicago: I wish to say, from my experience, that I do not think that immediate repair of the cervix is practicable, I do not think it is practiced, and I do not think the results will commend it to our use. I have simply done it twice, and the difficulty of doing it, the condition of the parts and their extreme relaxation made

it difficult to find the extent of the laceration of the cervix and where you could put your stitches safely, and the result was unsatisfactory. I have a friend who thought it was a great thing to do and ought to be done, but his own experience and the results have changed his mind. The condition of the parts immediately after labor are such that it is impracticable for us to immediately repair the lacerated cervix. The thing to do is to leave it, and the dangers we have from septicæmia are not increased by leaving it. It has been my experience and those who have attempted immediate repair that it is better not to do it and that is one of the things that the secondary operation should repair.

I do not leave a patient until the fourteenth, or twenty-first day or fourth week, according to the way she has passed through her trial, and I do not leave her until I have made a careful digital examination. That is generally sufficient. This is my experience and I feel interested in hearing the experience of those others on this point, which is comparatively new.

THE USE OF FORCEPS.

DR. L. L. DANFORTH: I am not surprised at the frequent use of the forceps. I think we have an important guide as to the necessity for the use of the forceps by the condition of the fetal pulse. We are too apt to forget the condition of the second patient. A prolonged labor with severe pains is apt to result in injury to the fetus. I think we should take careful observations as to the condition of the fetal pulse as labor advances and when these changes occur it is time to interfere. I believe many lives can be saved, to say nothing of the mother's condition.

Book Reviews.

All manuscripts for publication, and all books for review, in this journal should be sent to the Publication Office, 78 Maiden Lane, New York.

AN AMERICAN TEXT-BOOK OF GYNECOLOGY, MEDICAL AND SURGICAL. By HENRY T. BYFORD, M. D., JOHN M. BALDY, M. D., EDWIN CRAGIN, M. D., J. H. ETHERIDGE, M. D., WILLIAM GOODELL, M. D., HOWARD A. KELLEY, M. D., FLORIAN KRUG, M. D., E. E. MONTGOMERY, M. D., WILLIAM R. PRYOR, M. D., GEORGE M. TUTTLE, M. D., edited by J. M. BALDY, M. D. Royal 8vo volume, with 360 illustrations in text and 37 colored and half-tone plates. Prices, cloth, \$6.00; sheep, \$7.00; half Russia, \$8.00. Philadelphia, W. B. Saunders, 1894.

This work, which presents the present status of gynecological surgery and treatment, as understood and practiced in America, is one of the series of American text-books, and of equal value with those already issued. It covers the entire field of gynecology, and is of much practical value to the physician, as it deals with every-day cases concisely and lucidly. It is intended as a working text-book for physicians and students, but as is apt to be the case with specialists, the authors of the various articles presuppose a familiarity with the subject not possessed by students, and write in a technical style, with an absence of detail, which makes the work of greater value to the physician than to the student. The illustrations are numerous and clear, and cover the general anatomical points, which have, therefore, been omitted from the text.

The next work of the series to be issued is the American Text-Book of Obstetrics.

For its preparation the editor has called to his aid proficient collaborators, whose professional prominence entitles them to recognition, and whose disquisitions will exemplify practical obstetrics. While these writers have each been assigned special themes for discussion, the correlation of the subject-matter will, nevertheless, be such as will insure logical connection in treatment, the deductions of which will thoroughly represent the latest advances

in the science, and which will elucidate the best modern methods of procedure.

THE SCIENCE AND ART OF OBSTETRICS. By THEOPHILUS PARVIN, M. D., LL. D., Professor of Obstetrics and the Diseases of Women and Children in Jefferson Medical College, Philadelphia. New (third) edition. Octavo, 677 pages, 267 engravings and two colored plates. Cloth, \$4.25 ; leather, \$5.25. Philadelphia : Lea Bros. & Co., 1895.

The recognized position of Parvin's obstetrics renders commendation by us unnecessary. Professor Parvin's wide experience as a practical obstetrician, and as a teacher, eminently fit him for the work of writing a book upon his chosen subject. The present edition (the third) has been largely rewritten, about one-third, and the entire work revised, to conform with the latest methods and teachings. The style is clear, the information definite, the range comprehensive, and the knowledge authoritative. It is a work for the student as well as the practitioner. The illustrations, both in black and white and in colors, have been increased, and add materially to the value of the work.

A SYSTEM OF LEGAL MEDICINE. By ALLAN McLANE HAMILTON, M. D., and LAWRENCE GODKIN, Esq. Vol. II. New York : E. B. Treat, Cooper Union, 1895.

The second and concluding volume of "A System of Legal Medicine" is principally devoted to the treatment of the duties and responsibilities of medical experts ; insanity in the medico-legal relations ; traumatic neuroses ; effects of electrical currents of high power upon the human body ; feigned diseases ; birth, sex, pregnancy, and delivery ; abortion and infanticide ; genito-urinary and venereal affections ; marriage and divorce ; sexual crimes ; surgical malpractice ; the authors of the various papers being prominent members of the medical and legal professions. The most distinguishing feature of the work is its American character, conforming to the usages and customs of this country, the decisions cited being those made in the United States and the State courts. The articles, although covering a vast number of subjects, are concise, clear and comprehensive, and the work has been accepted as a standard authority by the courts.

GOUT AND ITS CURE. By J. COMPTON BURNETT, M. D. Philadelphia : Boericke & Tafel. 1895. Cloth, 90c.

The price of a book is no gauge of its value, for this little work, costing less than a dollar, is of far greater worth than many a more pretentious volume. While treating of gout and its cure, the author does not confine himself to that subject, but makes little divergences to one side, as in the story of the nettle as a medicine, and drops now and then a few pregnant words, which open a new line of thought, as where, speaking of the use of spiritus glandium quercus in the treatment of the alcohol habit, he brings up the question of the symptomatology and the pathology of drugs. Written in the doctor's inimitable style, the book will find many readers, who will be the wiser for the reading.

MEDICAL GYNECOLOGY, A TREATISE ON THE DISEASES OF WOMEN FROM THE STANDPOINT OF THE PHYSICIAN. By ALEXANDER J. C. SKENE, M. D. With Illustrations. New York : D. Appleton & Co. 1895. Pages 529.

Heretofore gynecology, at least so far as the literature of the subject was in evidence, has been entirely surgical, and the physicians who did not have a long list of laparotomies, ovariectomies, and hysterectomies to his credit did not deserve the name of a gynecologist, no matter how extensive his experience or successful his treatment. Hence we gladly welcome a work upon medical gynecology, from so distinguished a surgeon as Dr. Skene, with the hope that it may make it plain to the profession that gynecology is not all surgery. If Dr. Skene accomplishes no more by his book than showing that medicine plays as an important rôle in the treatment of the diseases of women as the knife, and that surgery should be regarded as a final resort only, he will have conferred an inestimable boon upon suffering women. The heartless injunction of the surgeon, that in cases of doubtful diagnosis the proper procedure is to "cut her open and find out," has done as much to degrade gynecological surgery as the indiscriminate hypodermic injection of morphine has done to lower medical practice. The book shows thought and study and is pleasantly written, so that once taken up it is sure to be thoroughly read, and, we trust, "marked, learned, and inwardly digested."

THE PHYSICIAN'S GERMAN VADE MECUM. A Manual for Medical Practitioners for use in the Treatment of German Patients. By RICHARD S. ROSENTHAL, author of the Rosenthal System Practical Linguistry, etc. In two volumes. The Rosenthal Publishing Co., Publishers, Chicago, Ill. 1895. Price per volume, \$2.00.

The little work by Professor Rosenthal, author of the *Meisterschaft System*, is a valuable book for physicians who are called upon to treat German patients, or who desire to obtain a practical knowledge of the language. The medical questions were prepared by Dr. Yount of Chicago, and are so worded as to require yes or no in answer. The exact pronunciation of each word is given as well as the literal meanings of the German phrases. The first volume is devoted to obstetrics and gynecology and the second to general practice.

A HANDBOOK OF THE DISEASES OF CHILDREN AND THEIR HOMEOPATHIC TREATMENT. By CHARLES E. FISHER, M. D., President of the American Institute of Homeopathy, etc., etc. Chicago : Medical Century Co., 1895.

The words, "their homeopathic treatment," it is refreshing to find, in this case, means precisely what it says, and that the treatment inculcated is homeopathic, "in strict loyalty to Hahnemann's law and the established practice of the early fathers." The list of remedies mentioned in connection with the various diseases is sufficiently extensive to meet the requirements in most cases, while the indications given, the pictures of the remedies, combining the symptomatology and the pathology, are full and clear. The descriptions, history, cause and symptoms, of the different diseases are clearly given—a feature of particular value, as since the setting in of the bacteriological fad descriptions of disease have given place to detailed accounts of the myriads of bacilli, bacteria, et id omne genus, which are presumed to be the causes of disease. As a matter of fact, in spite of the so-called advance in medical science, the average text-book of to-day contains less actual information concerning disease than did those of twenty years ago. We regret to see that Dr. Fisher has given so much space to bacteriology, a passing fad, as even granting that all that is claimed were true, it has absolutely no influence upon the

treatment. A dozen years from now bacteriology will have gone to the limbo of departed dogmas.

Aside from this, the book is only to be commended ; it is full, clear, and complete, and a valuable addition to the literature of children's diseases.

A MANUAL OF GENITO-URINARY AND VENEREAL DISEASES. By **BUKK G. CARLETON**, M. D., professor of genito-urinary diseases Metropolitan Post-Graduate School of Medicine ; with "Venereal Diseases of the Eye," by **CHARLES DEADY**, M. D. Pp. 315 ; cloth, \$3.00 ; morocco, \$4.00. New York : Boericke, Runyon & Ernesty, 1895.

We may say of this work, as of the majority of books issued to-day, that the trail of the serpent is over them all, and they are dominated by the teachings of the bacteriologist whose assumptions are accepted as veritable truths and his theories as actual facts. Bacteria, bacilli, microbes, etc., etc., until, in the language of the small boy, "you can't rest." It is yet to be proven that the gonococcus is the cause of gonorrhea, and it is far from being shown that treatment based upon that assumption is nearly as successful as pure homeopathic treatment. The so-called rational treatment is a retrograde movement from homeopathy. Aside from this defect the book will find a ready welcome, as it meets the wants of the specialist and general practitioner. Taking up each disease separately, it gives first the definition, then ætiology, clinical history, treatment, rest, diet, local and therapeutics, remedies, with their indications. The homeopathic treatment, so far as the list of remedies is concerned, is sufficiently full, but the indications would bear elaboration.

The chapters of gonorrheal and venereal diseases of the eye, by Dr. Charles Deady, are complete on the clinical history and treatment ; also the chapter, "Stone in the Bladder and External Urethrotomy," by Dr. William Francis Honan, giving history, ætiology, non-operative and operative treatment.

A HOMEOPATHIC MATERIA MEDICA ON A NEW AND ORIGINAL PLAN. By **M. W. VAN DENBURG**, A. M., M. D. Sample fascicle containing the Arsenic Group. Published by the author, Fort Edward, N. Y.

"The present volume," says the author, "is an effort toward

the production of an ideal *materia medica* on the basis of *similia similibus curantur*." Ideals differ, and what is idealic to one man may be just the reverse to another and the conception of an ideal *materia medica*, we fear, is but an iridescent dream.

The homeopathic *materia medica* is probably the most prosaic of studies and the hardest to be mastered. The long array of symptoms, which are often as much alike as peas in a pod, convey no impression, give no picture of the drug. There is nothing for the mind to grasp. To take arsenic, as an example, we might read and study the *materia medica* for months and not obtain as clear an idea of the action of the drug as we would from observing a single case of arsenical poisoning, and it is only when we can read the accounts of the provers, and the observations of cases of poisoning that we begin to see the picture of the remedy. When the outline is thus drawn, and the lights and shadows laid in, then we may attempt to fill in the details.

It is upon this plan that Dr. Van Denburg, has constructed his *materia medica*. To give first the outlines, then the broad effects, and finally the individual symptoms, the details. The work has been well done and the new *materia medica* is a long step in advance; a decided improvement upon any *materia medica* we know of, and is complete in itself. All that is known of arsenicum allopathic and homeopathic is there in a shape to be readily absorbed. The arrangement is rational, the grouping natural, and the contrasts effective. When the doctor has completed his book the *materia medica* will no longer be a stumbling block to the student of homeopathy.

GOULD'S STUDENTS' MEDICAL DICTIONARY. Eighth edition. Including all the Words and Phrases generally used in Medicine, with their proper Pronunciation and Definitions, based on Recent Medical Literature. With Tables of the Bacilli, Micrococci, Leucomaines, Ptomaines, etc., of the Arteries, Muscles, Nerves, Ganglia, and Plexuses; Mineral Springs of the United States, Vital Statistics, etc. Small octavo. 520 pages. Half dark leather, \$3.25. Half morocco, thumb index, \$4.25. P. Blakiston, Son & Co.

A commendation of Gould's dictionaries is a work of supererogation, as they have at once taken first rank among books of this class. The present work is compact, concise, reasonable in price,

and the best students' dictionary we know of ; containing all essential words, and omitting the obsolete, which increase the bulk without adding to the value of a working dictionary. The definitions are lucid and comprehensive ; neither too much nor too little. The value of the book is greatly increased by the excellent tables of the bacilli, micrococci, leucomaines and ptomaines, which contain a large amount of information in a limited space. The anatomical tables are also clear and concise.

Materia Medica.

Agnus Castus in Deficient Lactation.—Dr. Boericke.—After the second day of the confinement the secretion of milk begins, and reaches its height within two or three days. The condition we are most frequently called upon to prescribe for is the insufficient supply of milk. For this condition, animal food, cocoa, malt, gentle massage, and especially agnus castus, have given the best results.

Pulsatilla in Enuresis.—Dr. Chas. H. Evans, Clinique.—Pulsatilla, where the physical, constitutional, and emotional states of this remedy are strongly in evidence, and in this field it has gained many laurels. Nocturnal enuresis cured by the pasque flower sometimes follows the eruption of some papular rash, or establishes itself after an attack of measles. Little girls are especially the subjects for this remedy.

Caulophyllum in Threatened Miscarriage.—Dr. Madden has found caulophyllum a most successful remedy.

He could recall two or three cases where rest alone had failed and where rest combined with caulophyllum had carried the patient through the critical time, and living children had been born, and everything had gone on satisfactorily. Madden generally gives it in the second decimal, 5-drop doses three times a day.

Cyclamen.—The resemblance between this drug and pulsatilla is very striking. It is suitable in the blonde leuco-phlegmatic subject for which pulsatilla is adapted and for whom the latter has been considered the classic remedy ; there is also some scanty or suppressed menses, the numerous gastric symptoms, the aggravation from fatty or greasy food, the anæmia, the chilliness, and the thirstlessness, though thirst may be present in the evening.

Spongia in Diphtheria.—Dr. Toussant.—Spongia is particularly indicated by laryngeal symptoms. In a grave case of putrid diphtheria in which laryngeal symptoms were beginning to appear (hoarseness, rough voice, suppressed cough) I gave the medicine in alternation with arsenic, and not only the laryngeal symptoms but the anginal symptoms, the false membrane, the prostration, the glandular swellings, which merc. cyan., previously given, had failed to modify, diminished and disappeared.

Belladonna in Ovarian Pains.—Dr. McMichael, Hahn. Mon.—Right ovary much enlarged with lancinating, throbbing, burning pains, worse on appearance of menses, pains come and go suddenly.

Concomitants : Menses too early and profuse, bright red blood or dark with offensive clots decomposed, feels hot, bearing down pain. Backache, rush of blood to head, starting during sleep. Sleepy but cannot sleep, face red ; adapted to plethoric, lymphatic constitutions, delicate skin, light hair, blue eyes. Good-natured when well, cross when sick.

Kali Bichromicum.—H. J. Hawkens, Med. Current.—Acts on the fauces and air passages, and on the lining of the vagina and uterus. It causes, like mercury, a profuse discharge from the throat, only the discharge of kali is stringy and ropy, while that of mercury is watery. It produces inflammation of the tonsils and eustachian tubes, pain or swelling ; the tonsils are pale and covered with patches, the uvula puffy and bladder-like ; diphtheria of the larynx ; leucorrhœa of a stringy and ropy character. Catarrhs of a biting character, pressure at bridge of nose ; croupy

cough ; diphtheritic croups. The great characteristic of this drug is the ropy and stringy consistency of the mucus.

Sepia in Leucorrhœa.—Dr. C. L. McElwee.—Yellow, thick leucorrhœa, looks like pus and is bad smelling. Is worse in the morning with bearing down, as if the pelvic viscera would be pressed through the vulva ; is diminished by sitting or reclining or crossing the limbs.

There are apt to be dirty yellow spots in the face called "moth spots," or a yellowish saddle across the bridge of the nose. Occasionally little girls have leucorrhœa, and if it should chance to be yellow merc. p. will clear it away.

Lilium Tigrum in Metorrhagia.—Dr. W. C. Reed.—This remedy is one in which he has learnt to place great confidence. It meets essentially those cases in which there is more or less constant discharge from the uterus, described as "sometimes like whites" and "sometimes like dirty water," *i. e.*, a muco-purulent discharge, with sometimes the admixture of blood, which may be adventitious, or which may be truly menstrual. Reed thinks the latter is frequently from the fallopian tubes, and comes then intermittingly, and is not arrested by a return to physiological health of the endometrium, when the latter has itself received effectual treatment.

Viburnum Opulus.—Pinart gives three causes of dysmenorrhea. (1) A general state with tendency to neuralgia ; (2) an abnormal state of the uterus ; (3) morbid state of the ovaries. The characteristic of viburnum opulus is to act directly on the uterus, by rapidly diminishing the congestive and nervous phenomena, and by calming the consequent colic in this state. The author cites several examples of dysmenorrhea of the ovaries so frequent in chlorotics and for which hamamelis is so good a remedy, rapidly cured with viburnum prunifolium 3x, which shows that its action is not local to the uterus only but acts on the ovaries and the fallopian tubes.

Ipecac in Labor.—It is reported by two successful physicians of Russia, after a series of experiments upon parturient women, that ipecacuanha is a valuable stimulant to the contractions of a

sluggish uterus during labor. It was administered in three successive doses of 10 drops each of the wine at intervals of ten minutes. In from twenty to thirty minutes the contractions became of normal strength and duration.

When these successful physicians learn to give ipecacuanha according to the homeopathic indications they will have still greater success.

Allanthus in Scarlet Fever.—It is in the putrid, malignant, and typhoid varieties of scarlet fever that ailanthus is indicated, not only by the symptoms, but the pathological state of the blood and secretions. Like the poison of the above disease, its morbid effects involve the brain and cerebro-spinal centers, and destroy life in the same manner.

The eruption is peculiar; it is dark, almost livid, irregular, patchy, of a violet hue, even scaly, covering the whole body, or delayed and irregular in its appearance. In some cases these are large maculæ or bullæ filled with dark-colored serum.

It (the eruption) remains livid—it never takes on the genuine scarlet color. It sometimes takes the form of petechiæ.

The fever is intense, with pungent heat, a rapid small pulse, hardly to be counted, great thirst, delirium or coma, and heavy, hurried, irregular breathing. The head is burning hot, with great pain, eyes sparkling, with delirium, or inflamed (conjunctivitis). The nose discharges a copious, thin, sanious fluid, which irritates the skin, or blood and pus; the tongue is of a livid hue, dry, parched, and cracked; the throat livid and swollen; tonsils studded with numerous, deep, angry looking ulcerations, exuding a scanty fetid discharge; the pain when swallowing extends to the ears, and the teeth are covered with sordes. The urine is scanty, and voided unconsciously.

Podophyllum in Children's Diseases.—Fredk. Kopp points out some of the principal disorders incidental to childhood, in which the administration of podophyllum peltatum is followed by highly gratifying and beneficial results. During difficult dentition, so greatly fraught with danger to infantile life, in which rolling of the head is a prominent symptom, podophyllum peltatum stands in strict homeopathic relationship, and acts like

a charm. Also in those disorders of dentition in which coldness of the face, and at the same time perspiration of the head during the slumbers of the little patient are present, these symptoms are amenable to the action of this drug. Again, during dentition, when this natural process is attended with painful diarrhea, grinding of the teeth, and screaming, *podophyllum peltatum* is the drug indicated. The stools may be green, yellow, brown mucus, or watery, and without or streaked with blood. It is also very effective in chalk-like offensive stools, which are very frequent and accompanied with great thirst and gagging. In constipation of an obstinate character, and of several days' duration, the drug acts homeopathically and soon restores the bowels to a healthy action. It also acts well in removing the affection in older children known as grinding of the teeth. In cases of acidity of the stomach (another very common disorder of early childhood, where the food in the stomach very rapidly turns sour, and where there is a regurgitation of the food, with acid eructations), the drug can be administered with very gratifying results. In cases of poisoning by *podophyllum peltatum* which have terminated fatally, an enormous swelling of the abdomen has always taken place; in children, with distention of the abdomen and diarrhea, the drug may be used with beneficial results, even should these symptoms occur during enteric fever. In cases of whooping cough, in which loss of appetite and constipation play a prominent part, it is often of great service. Perspiration of the feet at night yields to *podophyllum peltatum*, for which it is a splendid remedy. In the restless sleep of children it has great influence. The restlessness is often accompanied with whining, which is a further indication for the administration of the drug. In infantile diarrhea in the acute stage, *podophyllum peltatum* acts well in cases with sudden exhaustive discharges, fetid and very profuse, generally worse in the morning. In enteritis it is indicated by the following symptoms: Diarrhea, worse in the morning, in which the appearance of the stools is of a constantly varying character. Also in prolapsus ani, in which the motions are loose. To obtain the best results, it is necessary to use the dilutions above 3x for the primary symptoms, and for the secondary symptoms dilutions below 3x.

Obstetrics.

Normal Expulsion of Placenta: Duncan or Schultz?—

Dr. Teuffel (Monatschrift für Geburtshülfe u. Gynak.) reports 25 cases in which he allowed the placenta to be expelled spontaneously. He made these observations in order to determine the truth of the theory that the placenta is rolled up by the uterine contractions on an axis corresponding to the long axis of the uterus, so as to present by its lower margin and of the other theory that, especially when the uterus is inert, the placenta is inverted and comes out with its fetal surface foremost. Teuffel noted that in 31 cases the placenta was completely inverted, in 8 not inverted (Duncan's theory), and in 4 incompletely inverted. In all the 8, which were expelled in the manner Matthews Duncan held to be normal, the rent in the membranes lay close to the border of the placenta. In the 13 cases of inversion the rent was found to be central (that is, opposite or as far as possible from the placenta) in 9; in 3 the tear in the membranes was between the center and the placental margin. In only 1 were the membranes torn close to the margin. In the 4 cases of incomplete inversion the tear was never central, but eccentric in 3 and marginal in 1 case. Teuffel sees cause in the site of the rent and effect in the manner of expulsion. When the afterpains set in the placental site is lessened, the placenta thickened, and if the marginal attachment of the membranes be intact the placenta is pressed forward, assuming a spherical form. The inverted position of the expelled structure is thus assumed, no effusion of blood is necessary to cause it or to hasten expulsion. When the membranes are rent close to the margin of placenta, the latter meets with no resistance, so that its edge at the site of laceration is pushed down and takes the lead, after Duncan's fashion. It is evident that any pressure or kneading of the obstetrician's hands on the outside of the uterus tends to expel the placenta in Duncan's manner, as the edge of the structure at some point or other is certain to be pushed forward. Hence Fehling's results, which favor this method of expulsion.

Living Premature Infants.—Villemin (Annales de Gynec. et d'Obstet.) read notes on a child which was thirty-one months old, and of a fine physical and mental development. It was delivered at $5\frac{1}{2}$ months, or at the longest computation at the sixth month. It weighed at birth less than two pounds. By aid of the couveuse and the most careful feeding it was most successfully reared. Maygrier declared that he had in one of his wards a six months' child a week old; it weighed only 770 grams, or under one pound twelve ounces, but it seemed to be sinking. Budin observed that he had known $6\frac{1}{2}$ months' babies to live for a day or two. The respiration was almost purely bronchial, the lungs did not float, and the vesicles were found full of epithelial cells. It is easy to believe that a strong premature infant could succeed in clearing the pulmonary vesicles and live. Charpentier had successfully reared an infant which weighed less than two pounds five ounces at birth.

Vaginal Injections After Childbirth.—The mortality in the London Lying-in Hospital, for five years previous to 1890, was only 4.18 per cent., the number of patients treated being 2150. Vaginal douching was done as a routine measure twice a day during the puerperium. During the period when the death rate was .418 per cent., the labors followed by fever from all causes amounted to 40.65 per cent. In a number of maternities on the Continent, where no douching was done, the percentage of febrile complications ranges from 6 to 10 per cent. Leopold has compared the two methods in Dresden with the following results: Of 2388 deliveries with injections, 17.2 per cent. had fever; of 1136 deliveries with vaginal washings, 20 per cent. had fever; of 1123 deliveries with no injection at all, only 9.7 per cent. had fever. In all these cases similar antiseptic precautions were applied to everything which approached the patient, but in the latter series there was no interference with the parturient tract. In comparing the second with the third set of cases it will be seen that in one thousand cases, two hundred had fever after deliveries, with injections and vaginal washings; while, in the same number, only ninety-seven had fever when no injections had been employed. If we admit, for the sake of argument, if not absolutely, that Leopold's results show that skillful antiseptic vaginal douching is

not only useless but actually dangerous, then it follows as a logical conclusion that indiscriminate douching by good, bad, and indifferent nurses, such as are placed at our disposal in private midwifery, is dangerous in a still greater degree.

The Conduct of Ordinary Labor Through External Examination.—Drs. Leopold and Sporlin (Archiv f. Gynäkologie) make a warm plea for limiting examinations made in the course of ordinary labor to the external parts, and adduce the advantages of such a course. Infection is thereby avoided; the natural sense of modesty of the parturient is not offended and careless rupture of the membranes is avoided. Skill in external examination is acquired with reasonable reading. In the large majority of cases such examination alone is sufficient for the recognition of the position and presentation of the fetus and for the study of the course of an ordinary labor. As there can be no objection to its frequent exercise, abnormalities of parturition may the more easily be detected early, and means of correction promptly employed. Experience soon teaches the difference in the position of the fetus assumed in case of pelvic contraction on the part of the mother. The position and presentation having been recognized by external examination, internal examination for the detection of possible pathogenic conditions of the birth canal need be but brief, and can be conducted with great care.

Management of Labor Complicated by Heart Disease.—Barton Hirst has successfully conducted many such cases without a death. One patient had mitral insufficiency and stenosis, with orthopnoea and "a face as blue as indigo." Another was a primipara, aged forty-four, with congenital mitral and tricuspid disease and advanced renal complications. A third was the subject of aortic disease and aneurism of the arch of the aorta. A fourth had old mitral disease, albuminuria, and profound anæmia. Hirst's principles of treatment are recorded. Digitalis and strophanthus are given in usually large doses during pregnancy, which, as a rule, should be induced prematurely. When labor begins, digitalis and strychnine are administered hypodermically in strong doses until the os is of the size of a dollar. Then, in head presentations, the forceps should be applied and the child

extracted as rapidly as possible without regard to the integrity of the maternal tissues and without anæsthesia. In several cases Hirst has deeply incised the cervix on all four sides. The hemorrhage from the lacerations and incisions after delivery is the best safeguard against engorgement of the lungs and overstrain of the heart after childbirth. A hypodermic syringe charged with nitroglycerin and some pearls of nitrite of amyl should be close at hand, and when the placenta is expressed no ergot should be given nor any other means taken to prevent *post-partum* bleeding, which, within bounds, should rather be encouraged. To compensate for the sudden diminution of intra-abdominal pressure a large pad above the umbilicus and a tight binder should be applied.

Backward Displacements of the Uterus.—Davenport (Annals of Gynæcol. et Pæd.) sums the matter up in the following propositions :

1. In cases of uncomplicated retroversion or retroflexion of the uterus, the choice of treatment lies between shortening the round ligaments and the wearing of a pessary.
2. A cure, either anatomical and symptomatic, or symptomatic alone, may be confidently expected from the use of a pessary in about twenty-five per cent. of all cases.
3. Where a cure is effected, it is usually within a year or a year and a half after beginning treatment.
4. A large proportion of those not cured can wear a pessary without discomfort.
5. The operation for shortening the round ligaments should be limited to those cases where a pessary cannot be worn, to those who prefer it to wearing a support for years, to cases where vaginal treatment is inappropriate, and as supplementary to other operations.

Gynecological Etchings.

Hot Steam in Uterine Affections.—Dr. L. Pincus employed the application of steam with gratifying results in one case of cancer of the uterus, which could not be operated—in three cases

of fungous endometritis, in five cases of cervical endometritis, and one case of putrid puerperal endometritis.

The instrument used consists of a small boiler provided with a safety valve, attached to an intra-uterine cannula by means of a rubber tube (gray variety), which should be capable of resisting a temperature of 212 degrees F. The cannula has near its extremity three longitudinal apertures about two inches long, through which the steam escapes; near its base a wooden handle is attached, by which the cannula can be held without burning the fingers.

In all cases, with the exception of one case of cancer of the uterus, the cervix was first dilated by means of iodoform gauze, or of a uterine dilator.

As soon as the water begins to boil, Dr. Pincus removes the spirit lamp from under the boiler, introduces the cannula, and then puts the lamp back under the boiler. In this way he prevents the pain which would be caused, during the introduction of the cannula, by the escaping steam. In the case of cancer of the uterus, whenever the jet of steam penetrated into the womb, a flow of blood and bloody matter took place, carrying with it a number of shreds and putrid pieces. The applications lasted but thirty or forty-five seconds, after which time Dr. P. first removed the lamp and then took out the cannula. The instrument was usually covered with a black, tenacious clot, adhering closely to it and obstructing the orifices of the instrument.

At each application steam would escape through the safety-valve, showing that the orifices were clogged up, but by twisting the cannula the steam would stop escaping, indicating that the apertures were again open. This shows the necessity of a safety-valve being attached to the boiler, and of having the orifices of the cannula of sufficient size.

The therapeutical effects in this case were very satisfactory. After each application the hemorrhages and the putrid discharges disappeared, while the pain was considerably subdued, these results lasting from eight to eleven days each time.

In hyperplastic endometritis this treatment was equally beneficial. On the third day of the treatment there usually occurred a profuse discharge, lasting from nine to twelve days, which acted

as a cleanser to the mucous membranes of the uterus ; and the hemorrhages usually ceased after several applications of the steam. In one case, however, it provoked violent uterine colics, which the author succeeded in subduing by painting cervical cavity with a solution of cocaine.

Lastly, in cervical endometritis and in putrid puerperal endometritis, the treatment by steam was very beneficial.

Spontaneous Rupture of the Non-Gravid Uterus.—Meinert (Wiener med. Presse) remarks that this accident is believed by many to be mythical. He has, however, observed two cases. In the first there was hematometra with extreme retroflexion ; rupture occurred, abdominal section was performed, and the patient recovered. In the second case pyometra existed. The uterine walls gave way. The abdominal cavity was opened. This time the operation was also successful.

Ectopic Gestation.—Dr. Hirst says a diagnosis in cases of extra-uterine pregnancy before rupture of the gestation sac, may be made as follows :

1. An exquisitely tender tumor usually fixed in Douglas' pouch.
2. Patient gives history of regular menstruation for a time, followed by irregular flows or even entire cessation. This is followed by free or even constant bleeding.
3. This bleeding is accompanied by the passage per vaginam of lumps of uterine decidua, always described by the patient as lumps of flesh.
4. The fixation is due to inflammation before the presence of serious symptoms, and the doughy feel is pathognomonic when found.
5. Constant pain in the groin should put the physician on guard at once, and a thorough examination can not fail to reveal the condition.

Cure of Uterine Diseases by Vibrations.—Bourcart (Ann. de Gynec. et d'Obstét.) would revolutionize uterine therapeutics by extending Brandt and Kelgren's principle of using manual vibrations to insure absorption of inflammatory exudations. In the case of the uterus instruments are required. Liedbeck has already invented a good apparatuses for producing vibrations by

electric means. In the case of the uterus the vibrations must be rapid, very regular, and penetrating. The vibrations can be perfectly transmitted through the abdominal walls. Bourcart, acting on the knowledge of these facts, has contrived a portable dynamo, to which he fits a vibrator, which he places with his right hand against the parietes. The uterus is pushed toward the parietes by the left forefinger passed into the vagina. In the same way the fallopian tubes and ovaries may be pressed in the direction of the vibrator. Bourcart declares that subinvolution is particularly benefited by the vibration treatment. In metrorrhagia from fibroids it is equally useful; the tumor may even diminish in size under a course of this treatment. He treats endometritis by vibrations transmitted by means of a specially constructed stem, but he admits that further study of this new variety of uterine therapeutics is required.

The History of Vaginal Hysterectomy.—Vaginal Hysterectomy is claimed as one of the triumphs of modern surgery. According to Greig Smith this operation was performed for prolapse before the Christian Era; brought forward again in 1813 by Langenbeck, but like almost all noted operations, it passed through many vicissitudes. It has been successful in the hands of some and unsuccessful in the hands of others. Langenbeck was very skillful in performing the operation, while many French and German surgeons met with poor results. Then it fell into disrepute until fifteen years ago, when Czerny took it up. The mortality was at first very high, but now it is just as low, so low, in fact, that some surgeons of Europe perform it on diseases other than cancer. Among those prominent in its improvement are Pean, Segond, Jacobs, Sanger, and Landou. Jacobs claims to have removed the uterus, tubes, and ovaries, per vaginam, in 140 cases, with a death rate of only fourteen per cent. The opinions among leading surgeons at the present time seems to be that the entire uterus should be removed and partial operations should be abandoned. By removing the entire organ we get a lower mortality and better results.

Vesicular Mole followed by Malignant Changes.—Dr. Marchand (Monatsch. f. Geburtshülfe u. Gynäk.) tabulates fifteen cases of deciduoma malignum, and twelve of malignant growths

following the development of vesicular mole. It appears that a case was noted as long ago as 1795, but the first ever recognized in our days was described in 1883 by Guttenplan, and ten out of the thirteen have been reported since the beginning of 1890. Eleven died less than two years after the vesicular mole was removed; in one there was no after-history beyond the sixth or seventh week, when the uterus contained deposits. In the remaining case the uterus was removed through the vagina. Three months later the patient was doing well. Marchand gives reasons based on histological research why vesicular molar pregnancy should particularly predispose patients to malignant disease of this type. He is not at all certain as to the precise homology of malignant deciduoma as a tumor; it differs from cancer in many ways, though it is of epithelial origin. It may be taken as proved that this newly discovered disease is well established, and seems to be growing more frequent.

Puericulture.

Lactation Statistics.—Wiedow (Centralblatt f. Gynäk.) has collected the following statistics at the Freiburg Maternity. Out of 525 women in childbed only half could suckle thoroughly during the first two weeks. In 99 no milk at all was secreted. Imperfect nipples were noted in 49 cases, fissures in 46, and insufficient secretion of milk in 44. Only 33 suckled freely without any of the above-named unfavorable complications. Wiedow classifies breasts under three groups, the percentage in his series being: good breasts, fifty-six per cent.; medium, twenty-one per cent.; and bad, eleven per cent. The development of the nipple bore a direct relation to the value of the breast as a secretory organ.

Sterilized Milk.—The observation is made that since the introduction of sterilized milk we meet with constipation of infants more frequently. The fæces are formed into dry, bad smelling masses, resembling those of the lower animals.

Paralysis following Tonsillitis.—Dr. Bourges (Arch. de Med. Exp.), in support of the statement that paralysis similar to that following diphtheria may arise subsequently to other forms of sore throat, records the following cases: A child, aged seven, was attacked with sore throat, pyrexia, etc. There was no membrane, and the illness subsided in twenty-four hours. About a fortnight later he was again attacked, and this time distinct false membrane appeared on the fauces, but not for three days was there any lividity of the neighboring parts. The glands in the neck were swollen. There was no albuminuria. A few days later the mother, who had constantly nursed the child, was also attacked with sore throat, and membrane formed on the right tonsil. The membrane in each case was examined, cultures made, and mice inoculated. None of these showed the Loeffler bacilli. Various streptococci and staphylococci were found, and some small bacilli staining by Gram's method. About six weeks from the last attack of sore throat the child developed convergent strabismus, paralysis of the soft palate, loss of power in the limbs, and general weakness.

A Circumcision Specialist.—A curious circular, issued by a specialist operator for circumcision, is sent out broadcast to all such proud parents as think fit to announce their new responsibilities in the "Birth" column of the *Times* and other papers. If this advertiser limited his attention to the babies not much harm would be done. At confinements there generally are doctors, and so as regards the infant advice is at hand. But the advertiser seems rather to aim at the father. Special attention is drawn to the fact that age is no disqualification. The advantages of circumcision are open to all, as also are the evils arising from its neglect. Probably it is thought that with an increasing family the poor father will not be in the brightest condition, so it is ingeniously suggested that "every invalid or victim of some obscure nervous disorder should not neglect this, as it will materially assist in restoring him to health." The odd thing is that it should pay to send such circulars; one might imagine that only one out of a sackful would ever lead to "business," but the human mind, when it turns to sexual concerns, is a weaker thing than most people would believe, and is very prone to go astray.

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